

Announcement

Total 23 articles, created at 2016-03-09 12:01



1 For women in tech, it's been a so-so year

The tech industry knows it needs to do a better job attracting and keeping women. In honor of International Women's Day, we give you a quick look at some of the results so far. 2016-03-09 08:35 1KB www.cnet.com



2 Apple has support of independent voters in FBI iPhone battle

In a 2-to-1 margin, independent voters say the iPhone maker shouldn't cooperate with government efforts to crack open a terrorist's iPhone, according to a new poll. 2016-03-09 11:21 2KB www.cnet.com



3 Google hooked us on the geekiest game you've never heard of

100,000 people just watched a computer play an ancient Chinese board game on YouTube, and Artificial Intelligence won. This is how Google takes over the world. 2016-03-09 11:21 3KB www.cnet.com



4 Bionic fingertip allows an amputee to feel textures for the first time

An artificial fingertip interfacing directly with the user's nerves has allowed an amputee to distinguish between textures. 2016-03-09 11:21 2KB www.cnet.com



5 Partners Energized As Cisco Acquires Synata To 'Super-Charge' Its Spark Search

Cisco's move to boost its Cisco Spark business collaboration service comes as new research shows its lead in collaboration market share growing. 2016-03-09 11:19 3KB www.crn.com

6 Salesforce Financial Services Cloud Goes Live

The solution for wealth managers and other financial professionals hits the market with almost two dozen ecosystem partners. 2016-03-09 11:19 2KB www.crn.com

7 30 Notable IT Executive Moves: February 2016

February ended with multiple blockbuster executive moves, a number of them at VMware and Ingram Micro. Take a look back at some of the most significant moves of the month. 2016-03-09 11:19 1KB www.crn.com

8 HPE Aruba Launches First-Ever Combined Network Solutions -- Aiming At Cisco's Share

Less than 9 months after Hewlett-Packard acquired Aruba Networks, the combined company reveals a slew of new integrated networking products. 2016-03-09 11:19 3KB www.crn.com

9 Exclusive: Alfresco Boosts Channel Relationship With Launch Of New Partner Program

Alfresco Software, which provides open-source enterprise content management and business process management solutions, hopes to propel channel sales with the new program. 2016-03-09 11:19 4KB www.crn.com

10 Security Marketing Frenzy: 13 Scenes That Show The RSA Conference Is Crazy Than Ever

CRN walked the RSA Conference 2016 expo halls in search of sights that make this storied conference fun. Here are 13 examples of ones that were the most interesting. 2016-03-09 11:19 1KB www.crn.com



11 Google exec can't wait for a computer to love him

Technically Incorrect: Ray Kurzweil insists that in the near future computers will know what it is to think and be like us. 2016-03-09 11:21 3KB www.cnet.com



12 Ford driverless car tech has snow problem with bad weather

Sensor data and chill for autonomous car testing 2016-03-09 08:24 3KB www.theinquirer.net



13 Public safety broadband a 'critical enabler': Vic government

Law-enforcement and emergency services need their own mobile broadband spectrum, because commercial networks don't have enough remote reach, the Victorian government has said. 2016-03-09 08:09 7KB www.zdnet.com



14 AlphaGo defeats South Korean Go champion in landmark AI match

In a tense first match out of five, AlphaGo defeated a South Korean Go champion after the latter surrendered with 20 minutes remaining in the landmark Go match between man and machine. 2016-03-09 08:03 2KB www.zdnet.com

15 Technolust: A Drone, a Projector, and a Radar Detector

The stuff we want that's beyond us... for now 2016-03-09 08:00 644Bytes www.maximumpc.com

16 Security Think Tank: Many breaches down to poor access controls

In the modern business environment, what are the most common access control mistakes – and how best are these corrected? 2016-03-09 06:47 2KB www.computerweekly.com



17 Researcher receives \$15000 through Facebook's bug bounty program

Researcher Anand Prakash has been awarded \$15,000 (50,550,000 UGX) through Facebook's bug bounty program after disclosing a password flaw which allowed attackers to access accounts with little effort. The flaw, since fixed by Facebook, was a simple vulnerability that gave the researcher access to Facebook accounts without any user interaction... 2016-03-09 07:42 2KB pctechmag.com



18 We bring you peas: Vegetables grown in simulated Mars dirt

An experiment to test the viability of growing food on the Red Planet has resulted in successful crops of 10 different vegetables. 2016-03-09 07:38 2KB www.cnet.com

19 Don't think that Brexit will save you from the EU data protection rules

You'll no doubt have heard about new data protection rules - allegedly tougher than the current UK Data Protection Act 1998 – which were agreed in Brussels last December, becoming enforceable in two years' time, known as the General Data Protection Regulation (GDPR). 2016-03-09 07:39 2KB www.computerweekly.com



20 Report: SK Hynix will start mass-producing HBM2 memory this year

A new generation of graphics cards is coming, and memory chipmaker SK Hynix wants to be part of the revolution. According to the German IT website Golem.de, SK Hynix plans to start production of second-generation High Bandwidth Memory (HBM2) soon. 4GB SK Hynix chips are apparently slated for the third... [2016-03-09 06:17 1KB techreport.com](#)



21 Plan your vacation with “Destinations on Google”

These days, mobile phones make it easier than ever for you to sneak in vacation dreaming and planning here and there, in line at the coffee shop, waiting at the doctor's office, or on your way to meet a friend. Last year, according to internal data for Google, there was... [2016-03-09 06:34 3KB pctechmag.com](#)



22 India files complaint against US visa fee hike

The WTO is seeking the US' reply on India's request for consultations to settle the dispute. [2016-03-09 06:26 4KB www.zdnet.com](#)



23 ACMA announces consolidated government spectrum

The Australian government's spectrum regulator has announced the availability of the 400MHz band for governments to consolidate their spectrum licences. [2016-03-09 06:01 7KB www.zdnet.com](#)

Articles

Total 23 articles, created at 2016-03-09 12:01

1 For women in tech, it's been a so-so year

The push toward gender equality in the tech world is, at best, a mixed bag.

And the industry knows it. Many of its biggest companies, including Apple and Facebook, admit they need to do more to attract women to their workforce. A few, such as Salesforce.com and Intel, now make sure women and men doing the same work are paid the same. On the flip side, the gaming industry still displays more than its share of harassment, and some white men still debate what a software engineer actually looks like.



To mark this year's International Women's Day on March 8, CNET took a look back at the last 12 months to note both the good and bad as the tech industry figures out how to become more inclusive.

The three-year plan, which still needs congressional approval, would give states money to build up their computer science programs in grades from kindergarten through high school, helping them train teachers and develop new classroom materials.

Stereotypes still rule: Last summer, OneLogin ran ads around San Francisco looking to recruit more people to the company, which focuses on cloud-based security. Such advertising wouldn't normally generate much attention, but one of OneLogin's ads did, because it included a young female engineer named Isis Anchalee. Anchalee found herself the topic of posts and messages, some positive and some negative, about her role in a male-dominated industry.

Update, 4:33 p.m. PT: Adds information about the ONE campaign.

2016-03-09 08:35 Ben Fox www.cnet.com

2 Apple has support of independent voters in FBI iPhone battle



Apple has at least one firm political ally in its fight with the FBI over an encrypted iPhone linked to the deadly San Bernardino terrorist attack: the independent voter.

Overall, 47 percent said they feared the government wouldn't go far enough in protecting national security, while 44 percent feared it would intrude too far into citizens' privacy. Republicans leaned toward protecting national security over a government overreach concerns, 57 percent to 37 percent, respectively. Meanwhile, Democrats were a little more evenly split on the subject, with 50 percent worrying the government would go too far and 40 percent worrying it wouldn't go far

enough.

The only voter group that seems to be siding with Apple on the issue is the independent voter.

By a 2-to-1 margin, independent voters, who don't tend to identify with either major US political party, said Apple shouldn't cooperate with the FBI's efforts to crack open a phone (58 percent). Only 28 percent of independents said the company should cooperate.

The poll results give a little more insight into the closely-watched and intensifying standoff between Apple and the feds. At issue is whether courts and law enforcement agencies can compel Apple to break the iPhone's security features.

Besides the support of the independent voter, Apple also has the backing of more than 40 top tech companies, including Amazon, Facebook, Google and Microsoft, that filed amicus briefs last week to show their support for Apple in the battle.

A court hearing to determine whether Apple should be forced to comply with the FBI's request is set for March 22 in federal court in Riverside, California.

Apple did not immediately respond to a request for comment on the poll, which surveyed 1,200 registered voters between March 3 and 6.

2016-03-09 11:21 Steven Musil www.cnet.com

3 Google hooked us on the geekiest game you've never heard of

The jocks of the world thought the End of Days would come with explosions, bravado and full-camouflage utility belts. But the rise of the machines is currently playing out in the Four Seasons Hotel in Seoul, and it's being led by possibly two of the nerdiest groups known to man.

It's Match 1 of the Google DeepMind Challenge: AI versus human, a slow-paced, four-hour battle of strategy, complex algorithms and black and white tiles. We know what you're thinking: Time to clear your schedule and start heating the snacks.



If you haven't heard of Go, you're not alone.

Largely played in China, Korea and Japan, the ancient board game requires two players taking alternate turns to place black and white tiles on a grid, jockeying to occupy more of the board than their opponent.

Think of it like chess over a bigger monochromatic battlefield. Of course, the Go players don't think of it like that, as this is the game for people who think chess is too easy (and probably too newfangled).

But now, in a headliner the likes of which hasn't been seen since Kasparov vs. Deep Blue, AlphaGo is playing against Lee Sedol. Hui was a 2-dan Go player (because these things are measured in dans), but Sedol has 9 of 9 possible dans to his name, and is currently the second-highest ranked Go player in the world.

But undoubtedly the best part of the action are our two fearless commentators, managing editor of the American Go E-Journal Chris Garlock, and professional Go player or 'Go Pro' Michael Redmond. The hot takes have been coming thick and fast in a room that Garlock described as "fairly electric" while watching "the Roger Federer of the Go world" take on a brilliant computer.

On the atmosphere

Garlock: I can guarantee there won't be a wasted moment. History is really being made here. Can we guarantee that?

Redmond: I think so.

On the start of proceedings

Redmond: It's very exciting. Just one move so far.

On the battle between man and machine

Garlock: The machine is not going to get tired, he's not going to get intimidated.

Redmond: Pretty much everyone gets intimidated when they go up against Lee Sedol.

On strategy at the start of a Go game

Redmond: He said he had a weak opening...

Garlock. I wish I had his weak opening!

The atmosphere after three hours...

Garlock: I think it's really lived up to its billing as a tremendously historic and exciting game!

At the end of all this, there's \$1 million in prize money up for grabs, which Google says it will donate to charity if AlphaGo wins. But as Garlock says, "the real prize is the bragging rights, whether for man or machine. "

Update 11:35 p.m. PT:

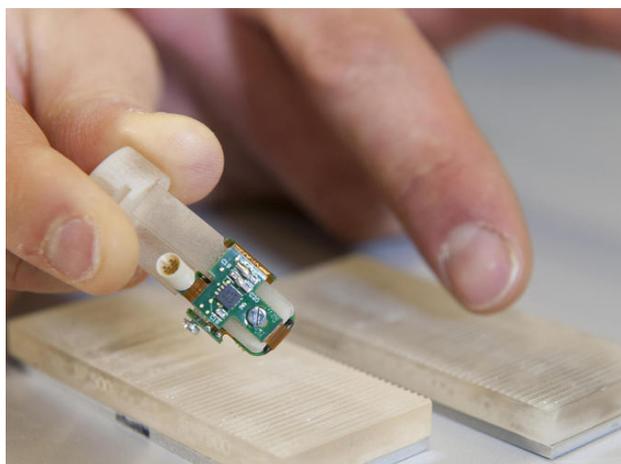
That's it. The world is over and the machines have won. In the final thrilling moments (yes, we watched all the way to the end) AlphaGo won the game when Lee Sedol resigned.

"AlphaGo won. You saw it here," said Garlock. "Right off the bat -- the first game, and AlphaGo takes down Lee Sedol. "

It's safe to say we'll be tuning into the next game!

2016-03-09 11:21 *Claire Reilly* www.cnet.com

4 Bionic fingertip allows an amputee to feel textures for the first time



An artificial fingertip that allows the wearer to distinguish textures in real-time could advance the development of bionic prostheses because it can be tested without the need for surgical installation.

The fingertip is the first to be able to detect not just pressure, but the difference between rough and smooth.

Then the fingertip was moved over pieces of plastic engraved with different patterns, some smooth, some rough. The sensors moved over the plastic and created an electrical signal and set it to a PC to be interpreted into tactile

information about the surface. This final signal was sent up the wires and into Sørensen's nerves. A blindfolded Sørensen then reported what he felt.

He was able to tell the difference between rough and smooth with 96 percent accuracy.

Testing the fingertip on non-amputees means that development can be a lot faster. Instead of the surgical interface, needles are inserted into the skin and attached to the median nerve in the test subject's arm. The test subjects then touch the plastic surfaces with both their fingers and the artificial fingertip while wearing an EEG cap.

This allows the team to see how the test subject's brain responds to both kinds of touch. Whether using the artificial fingertip or their own hand, the test subjects' brains shows the same activity. Moreover, they were able to differentiate between rough and smooth with 77 percent accuracy. This is not as accurate as Sørensen, but it does demonstrate the feasibility of a temporary needle interface over surgery.

"This study merges fundamental sciences and applied engineering: it provides additional evidence that research in neuroprosthetics can contribute to the neuroscience debate, specifically about the neuronal mechanisms of the human sense of touch," said Calogero Oddo of the BioRobotics Institute of SSSA, who participated in the research.

"It will also be translated to other applications such as artificial touch in robotics for surgery, rescue, and manufacturing. "

2016-03-09 11:21 *Michelle Starr* www.cnet.com

5 Partners Energized As Cisco Acquires Synata To 'Super-Charge' Its Spark Search

Its 2016 acquisition tear continued Tuesday as Cisco Systems said it has bought cloud search company Synata to "deliver super-powered search" Cisco Spark, its business collaboration service. The move comes as new research from Synergy Research Group shows Cisco's collaboration leadership position against Microsoft is widening.

"The momentum is building around Spark," said Robert Keblusek, CTO of Downers Grove, Ill.-based Sentinel Technologies, a Cisco Gold partner. "This acquisition certainly makes sense around Spark and the direction they're looking to go around a hybrid experience. ... I like it. They're making investments in their bread-and-butter technologies and trying to continue to show their leadership. "

Privately held Synata, based in San Francisco, owns technology that allows users to search on-premise and cloud-based applications simultaneously from one platform. Cisco Spark is built on the Cisco Collaboration Cloud, allowing customers to message, meet or call anyone from anywhere.

[Related: Cisco Snapping Up CliQr For \$260M To Better Manage Hybrid Clouds]

Synata's search technology will work within Cisco Spark's approach of having end-to-end encryption in the cloud, according to a blog post Tuesday from Rowan Trollope, senior vice president and general manager of Cisco's Internet of Things and Collaboration Technology Group.

"When I first saw what Synata could do on top of Cisco Spark's end-to-end encryption -- without negatively impacting speed or usability -- it blew me away," wrote Trollope. "[Synata] was working hard to solve the tricky problem of how you search something you can't see -- something like highly encrypted data in the cloud. ... We are all excited to deliver super-powered search to Cisco Spark users everywhere soon. "



Terms of the deal were not disclosed.

Cisco's collaboration push in recent years has been praised by channel partners and embraced by customers.

San Jose, Calif.-based Cisco is widening the gap in collaboration against Microsoft, according to new fourth-quarter 2015 worldwide data from Synergy Research Group. Cisco's overall collaboration market share for the quarter hit a two-year high of 16 percent. Microsoft took second place with 13 percent share, followed by Avaya with around 4 percent.

Regarding premise-based collaboration solutions, Cisco again was the leader, owning 27 percent of the market. Microsoft trailed with 17 percent share, followed by Avaya with nearly 10 percent, according to the research group.

But when it comes to hosted/cloud collaboration, Microsoft is the market leader with 9 percent, followed by Cisco with slightly more than 5 percent.

2016-03-09 11:19 *Mark Haranas* www.crn.com

6 **Salesforce Financial Services Cloud Goes Live**

The Salesforce Financial Services Cloud went live Tuesday with almost two dozen ecosystem partners already building solutions extending it to specific sectors of the financial services industry.

The new cloud, built on Salesforce's Lightning application development platform, offers a customer-centric interface to pull disparate information into one cohesive system, Simon Mulcahy, general manager of Salesforce's financial services division, told CRN.

Wealth management advisers in particular are growing increasingly frustrated trying to piece together comprehensive customer views from a hodgepodge of fractured solutions, Mulcahy said.

[Related: [Salesforce Debuts Health Cloud, A Solution For Managing Patient Relationships](#)]

As the industry "knits itself into a new format," Mulcahy said, San Francisco-based Salesforce believes what's missing is a product offering a snapshot view encompassing market information, insights related to their book of business, detailed client information and analytics.

Salesforce solicited input from scores of financial firms of all sizes before spending roughly a year developing the product to help wealth management advisers and other financial professionals engage their customers.

While customers eagerly chimed in on exactly what they needed, Mulcahy said, "we got as much excitement from our partners as our customers."

Wealth management is the most natural use case, but the product can serve a wider variety of financial professionals, from big financial houses to brokers, retail banks and insurers, Mulcahy said. The name Wealth Management Cloud was abandoned to reflect the greater possibilities, he added.

Because Financial Services Cloud aims to unify a host of existing software solutions on the market, and drive development of new tools, support for a third-party ecosystem was an essential component of the product's development strategy.

Salesforce invested a great deal of effort in identifying technology and go-to-market partners it considers good fits for the product, according to Mulcahy.

"We're working for them, identifying how we can build a powerful long-term relationship with partners, then connecting them to Financial Services Cloud," Mulcahy said.

7 30 Notable IT Executive Moves: February 2016

Start It Off

After a January packed with executive moves, February gave the channel a chance to breathe and absorb some of the changes. That is, until the last few days of the month served up blockbuster moves at VMware, Ingram Micro, Salesforce and more. February also saw high-level executive changes at Google, FireEye and Black Box Network Services. Some changes had solution providers fired up about the future of their vendor partners, and others had them a bit less optimistic. Take a walk back through February with a roundup of some of the most significant executive moves of the month.

2016-03-09 11:19 Sarah Kuranda www.crn.com

8 HPE Aruba Launches First-Ever Combined Network Solutions -- Aiming At Cisco's Share

Less than nine months after Hewlett-Packard -- now Hewlett Packard Enterprise -- closed its \$3 billion acquisition of wireless vendor Aruba Networks, the combined company is launching its first-ever integrated networking technologies, aiming at taking enterprise market share from Cisco.

"Now there's actually a unified story to tell," said Bill Carr, chief mobility architect at Malvern, Pa.-based Comm Solutions, a longtime Aruba partner. "The fact that in such a short period of time, we have some cohesiveness between the wired infrastructure and HP Smart Rate technology in the Aruba access points really proves that there must have not only been a plan, but an agreement to executive relatively quickly. ... Our enterprise customers are becoming more welcoming to an alternative to Cisco."

HPE Aruba launched a new suite of integrated networking and software solutions enabling enterprises to provide solutions to the rise of digitization, bring your own device (BYOD) and the Internet of Things, said Christian Gilby, director of product marketing at Aruba, a Hewlett Packard Enterprise company.

[Related: Cisco Security Exec: Vendors Like Palo Alto, FireEye Are Selling 'Legacy Technology']

The new integrated solutions include multi-gigabit Aruba access points with HPE Smart Rate technology, a software module for Aruba AirWave network management, ClearPath Policy Manager version 6.6, and a unified operating system -- ArubaOS-Switch -- which integrates the best features and capabilities from the ArubaOS and HPE ProvisionOS operating systems, according to the company.

"We're bringing the best of both worlds together for the first time," said Gilby, in an interview with CRN. "We're positioned really well here for success, and our approach is pretty differentiated [from] a Cisco."

Gilby said that with all of the acquisitions Cisco has done, the networking giant has implemented network technology into many different architectures.

"The competition usually has multiple architectures, and if you switch [among them], you have to swap out access points, for example," said Gilby. "We believe in providing the tool kit for customers so they can basically add the tools they need as they grow. ... In terms of how we're going to actually accelerate and deliver to customers is really tying all the software and hardware together, rather than maintaining separate products."

Worldwide switching and router revenue hit \$41 billion in 2015, according to data from Synergy

Research Group, with Cisco still dominating in the enterprise.

For the fourth quarter in 2015, Cisco owned around 62 percent of the enterprise switching market, followed by HPE, F5 Networks, then Arista Networks, according to Synergy. Cisco also captured 69 percent market share in the enterprise routing market for the quarter, followed by Juniper, HPE and Huawei, according to the research firm.

"Cisco has a stranglehold on a good portion of the marketplace, but I think the [Aruba] acquisition and the integration gives an alternative for those who are open to not necessarily pursuing an all-Cisco environment," said Comm Solutions' Carr.

2016-03-09 11:19 *Mark Haranas* www.crn.com

9 Exclusive: Alfresco Boosts Channel Relationship With Launch Of New Partner Program

Alfresco Software, which provides open-source enterprise content management and business process management solutions, is introducing a new partner program aimed at firing up its channel sales.

The San Mateo, Calif.-based company hopes its new program will grow its channel so that by the end of 2016, up to 70 percent of its business will go through partners.

"Our new partner program will allow us to more richly reward those partners that are proactively driving their Alfresco business," said Bob Crissman, vice president of global channel programs and sales at Alfresco. "We built this program to help our partners succeed, and the addition of a new partner portal is the key to that success. We have a growing community of system integrators, software vendors, infrastructure providers and resellers who are building phenomenal solutions with Alfresco."

[Related: [Apple Partners: First Known Mac Ransomware Campaign Shows No One Lives On A 'Secure Island'](#)]

Alfresco Software partners will have access to an array of benefits, including deal registration and co-marketing funds, as well as training and business planning sessions with dedicated channel account managers.

Partners will also have access to Alfresco's newly developed partner portal, which includes the ability to sync with Salesforce, lead registration, sales tools, sales and marketing collateral, training information, and leads.

The partner program is organized into three categories -- strategic certified, premier certified and authorized.

"We have a strong partner value proposition at Alfresco that resonates with next generation solution providers," said Crissman. "We have the industry leading ECM and BPM open source technology platform that allows partners to build very robust applications that solve their customers' business problems in a simple and modern way."

Alfresco hopes its partner program will help recruit super-regional solution providers, as well as streamline the Alfresco OEM program and drive greater focus with the company's existing key technology partners.

Adam Storch, vice president of business solutions at Micro Strategies, a Malvern, Pa.-based Alfresco strategic certified partner, praised the new program as an avenue for his company to build a tighter relationship with Alfresco.

"Alfresco's program brings reasons to tighten the relationship, with more deal registrations, more co-marketing opportunities and a more formalized way for how we work with them," Storch said. "It allows us to have a tighter relationship with them. With the enhanced partner program,

our expanding partnership and our technical expertise, we anticipate delivering more innovative solutions to a broader range of customers. "

Micro Strategies, which brings both hardware and business solutions to large enterprise customers in the financial segment, could benefit from Alfresco's new co-marketing opportunities and training sessions, added Storch.

"The marketing aspects are a really big deal. ... It allows us to get our co-branded solutions out there," he said. "The training piece has also really improved. "

Alfresco has been ramping up its channel efforts under Crissman over the past year, by creating the Partner Solutions Framework -- which shares results and customer feedback from use cases to help partners better understand which solutions are successful.

2016-03-09 11:19 *Lindsey www.crn.com*

10 Security Marketing Frenzy: 13 Scenes That Show The RSA Conference Is Crazy Than Ever

Live On The Show Floor

Every year, walking the expo hall at the RSA security conference is a feast for the senses. There are carnival barkers, games, prize giveaways, and people in crazy costumes. Sometimes there are also snacks and beverages.

But underneath the wild and fun atmosphere is a serious message: Security threats are multiplying every year, and if you think your corporate network and employee mobile devices are safe, think again.

Walking the RSA expo hall, one will quickly learn that today's threats are child's play compared to the ones looming on the horizon. The idea, of course, is to spur spending and get customers educated on the latest and greatest ways of stopping these threats.

This year, CRN walked the RSA expo halls — there are two, and they are huge — in search of sights that make this storied conference fun. Here are 13 examples of ones we feel were the most interesting.

2016-03-09 11:19 *Kevin McLaughlin www.crn.com*

11 Google exec can't wait for a computer to love him

Technically Incorrect offers a slightly twisted take on the tech that's taken over our lives.

Some expect 2029 will be a very interesting year. It could be the year when the minds of humans will be equaled by the minds of computers.

More importantly, though, it could be the year that computers start to tell really good jokes and show just how loving they are.

This, at least, is the vision of Ray Kurweil, Google's director of engineering.

"When I talk about computers reaching human levels of intelligence," he said, "I'm not talking about logical intelligence. It is being funny and expressing a loving sentiment. "



We've seen movies depict this future joy. We've seen how Scarlett Johansson mesmerized

Joaquin Phoenix in "Her," until he (almost) concluded she was the one. And what a one.

For Kurzweil, though, it's as if we'll become Joaquin Johanssons, the love children of humans and computers.

The nanobots that will live permanently in our brains will download new skills for us. Our genes will be constantly edited like these pages, so that we'll live forever free of disease and, who knows, even body odors.

But won't these superbeings merely be the equivalents of today's 1 percenters? Won't the rich advance themselves and leave the masses to be even lesser serfs, constantly looking up to their hybrid masters? After all, Kurzweil has already suggested that once we have our robotic implants, we'll be "godlike. "

Is there anything worse than a rich, godlike human?

It won't be like that, believes Kurzweil. Everyone will have a nanobot, just as they now have a cell phone.

He was, though, pressed to declare what we hybrid humans will do for a living. He wasn't too concrete about that, it seems.

The future is hard to imagine, even for a renowned futurist like Kurzweil. For all our brains, we humans do have a tendency to make a mess of things and perform random acts of idiocy. History takes turns that seem more like swoons.

There is, though, something tantalizing about the idea that a computer could give us the love that we seem to constantly crave from others -- and so rarely get for very long.

How wonderful it would be to have a computer that actually understood and even loved us on the darkest day. What a contrast from those who claim to love us but then seem to enjoy decrying us, cheating on us, leaving us and divorcing us.

The problem, of course, is that if we all end up as these human/computer hybrids, permanently healthy and constantly being programmed, there's one thing we might ultimately lose: our individuality.

2016-03-09 11:21 *Chris Matyszczyk* www.cnet.com

12 Ford driverless car tech has snow problem with bad weather



SNOW CANNOT STOP Ford's driverless cars, according to details the carmaker has released on how its autonomous vehicles cope with slippery and wet roads.

Most companies involved in driverless car technology, like Google, Mercedes and Audi, pick the easy route, preferring to test their cars on sunny Californian highways. Presumably to enjoying the temperate weather, when they are not cutting up busses.

But Ford explained that driverless cars also need to cope with difficult situations such as wet, snowy and slippery surfaces. This isn't down to Ford's tech team being a bunch masochistic snowboarding engineers, but because it wants to make its driverless cars suitable for all the world's roads, even those in Wales.

"If self-driving cars are to become a reality, and they almost certainly will, they must be able to navigate snow-covered roads," said the US carmaker.

To withstand poor weather, Ford's has set-up its autonomous systems to make use of Lidar

technology, This involves using fricking lasers to measure distances and create 3D maps of the data during pleasant weather conditions.

The maps are then used as a baseline of data for other driverless cars to work out their positions in situations where it's difficult to see the route ahead.

But Ford got a little too good with Lidar sensors and found they were identifying snowflakes and raindrops as obstacles. This returned false information to the autonomous system, giving the impression that precipitation should be avoided.

So Ford is now working with researchers from the University of Michigan to create an algorithm that can recognise snow and rain and filter out the information from Lidar sensor feedback. It's basically like a digital car umbrella made out of code.

Ford the mashes all this data with information collected from radar and cameras on the car and mixes it with GPS data. This is all thrown into a system called sensor fusion, which is used to monitor the road environment around its autonomous cars

Like overactive tour guides, the sensors also scan the environment for landmarks. These are then contrasted against the 3D map information, which Ford claims is able to provide more accurate positioning than GPS.

The combination of around 600GB per hour of data from multiple sensors means that a driverless car is not reliant on data from individual sensors. If one sensor malfunctions due to deterioration from mud, ice or grime, for example, the car is not left without the necessary data readings.

But Ford claimed its boffins are hard at work to render this problem moot: "Eventually, the cars might be able to handle ice and grime build-up themselves through self-cleaning or defogging measures."

All this is good to know, as the average human motorist isn't exactly the soundest thing on the road, with robot drivers arguably far safer than easily distracted teenagers and angry BMW drivers . μ

2016-03-09 08:24 *Roland* www.theinquirer.net

13 Public safety broadband a 'critical enabler': Vic government

The Victorian government has spoken out against the Productivity Commission's recommendation that public safety agencies (PSAs) utilise commercial networks and spectrum , saying that rural emergencies would have little coverage, and that cost implications are outweighed by public benefit.

The commission's Public Safety Mobile Broadband Productivity Commission Research Report [PDF] , released in January, recommended that instead of specifically allocating Public Safety Mobile Broadband (PSMB) spectrum to law-enforcement and emergency services, they should simply strike individual contracts with telecommunications providers themselves.



Steven Tsikaris, from the Victorian Department of Treasury and Finance, called mobile broadband a "critical enabler" for PSAs during a speech at the Australian Communications and Media Authority (ACMA) RadComms event on Wednesday.

"We don't see mobile broadband as the be-all and end-all, but [as] the critical enabler of key requirements for the technologies to assist us with our public safety outcomes, be they bushfires, be they floods, a whole series of other natural hazards and also human interest events that we have to grapple with, which by having telepresence, by having access to data, having access to data in the field, having key responders in key controlled areas, being able to interact; those things are enabled by radio-frequency spectrum," Tsikaris said.

The Victorian government official pointed out that emergencies could occur in regional areas with sparse commercial mobile coverage, which would inhibit the ability of PSAs to respond and communicate in the field.

"There's a significant difference between the availability of -- let's call it commercial-grade -- mobile broadband services and the areas where a state needs to operate in, Victoria and smaller states like Tasmania and the [Australian] Capital Territory," he argued.

"We [state governments] need to operate on at least 95 percent of our landmass, and that covers about 99 percent of the population coverage. And we're going from highly urbanised areas to peri-urban, to regional, to rural, to remote areas.

"Now that's about 15 percent more landmass than what all of our commercial networks cover. How do we fill that gap? We [could] have a bushfire in the middle of nowhere. "

The Productivity Commission had researched four options: Constructing a dedicated PSA network with allocated spectrum; a purely commercial approach; a full-coverage hybrid approach; and a targeted-coverage hybrid approach.

Productivity Commissioner Jonathan Coppel justified the decision by describing the disparity in costs between the options.

"We found that a dedicated network would be nearly three times more expensive than a fully commercial option," Coppel explained at RadComms.

"The reasons for this essentially relate to the quantum of the new investment that would be required to deliver the capability, and the extent of the infrastructure sharing among a wider set of users. "

Even the lowest-costing hybrid option was 1.3 times more expensive than the commercial option, he pointed out -- although he did recognise that there is a risk of supplier lock-in under commercial contracts.

A commercial solution would only cost AU\$2.2 billion over a 20-year period, the commission said.

By comparison, building a dedicated network for PSAs was estimated by the commission to cost AU\$6.2 billion, with the full-coverage hybrid solution projected to cost AU\$5.1 billion and the targeted-coverage hybrid solution AU\$2.9 billion.

Tsikaris argued, however, that all of these solutions have their own challenges associated, and the decision should come down to something more important than a simple costing analysis.

"How do we maximise the outcome of the state's limited constrained resources? How do we provide a level of equity across our community -- urban and rural and regional? There are different challenges in all those spaces, and different risks that are faced," Tsikaris said.

"Overlaying the opportunity cost analysis of the Productivity Commission [is] to understand what is the public value that is being delivered, if any, to actually get those outcomes? "

Coppel said that a small-scale pilot will be undertaken of the commercial solution in order to explore more precisely the costs, benefits, and risks so as to "develop a stronger business case for a wider-scale rollout".

"Across the benefits, the costs, and the risks associated with delivering PSMB capability, and

on a first-principles basis, the commercial approach offers the best way forward," Coppel concluded.

"It does this because it clearly is the least costly on the community; it is able to most likely deliver a PSMB capability sooner, together with a lower risk of delay; we think it also provides that flexibility to PSAs to scale up in demand in the short term, and because of the lower cost per user of upgrading technology, we think that there is a greater prospect that those upgrades will take place sooner or in a more timely way than they would under a dedicated approach. "

Tsikaris, meanwhile, pointed out that the Australian government has yet to advise of its own perspective on the matter. He also identified "commercial leverage" as a driving force in the state governments wanting their own spectrum.

"Governments tend to be perjoratively price takers. We don't have commercial leverage," he explained.

"We want to go from being a price taker to a price setter, and I think that's probably nearly impossible, but that's my challenge. "

PSAs -- which include police agencies, fire service organisations, ambulance services, the State Emergency Service, and marine rescue and coast guard -- have been pushing for their own spectrum and network for years, saying they need to be able to access high-speed video, high-quality images, geolocation tools, and biometric capabilities wherever they are working.

Under a commercial approach, PSAs would be forced to share network capacity when jurisdictions overlap, with a jurisdiction-wide implementation entity recommended to be formed in order to minimise duplication, improve economies of scale, and offer opportunities to piggyback off other PSMB government investments, such as the mobile blackspot program .

The commission also advised against the government supplying dedicated spectrum to PSAs.

Police Federation of Australia (PFA) CEO Mark Burgess had previously called the commercial approach " short sighted ", saying the report was based solely on economics without taking into consideration public safety.

"Historically, every incident that has arisen where there's been some form of either coronial inquiry or other inquiry or a royal commission into natural disasters in particular, but a whole range of things in that space, every one of them has found a problem with communications. And this is just condemning us to have the same problem over and over and over again," Burgess told ZDNet in September.

"It's very, very short-sighted on the part of the Productivity Commission, but understandably, they're not experts in this area; they're basically economists. They're looking at the costs aspect of it. Our key concern is the safety of the public. "

2016-03-09 08:09 *Corinne Reichert* www.zdnet.com

14 AlphaGo defeats South Korean Go champion in landmark AI match

AlphaGo has defeated South Korean Go champion Lee Se-dol in the first match of the landmark games between man and artificial intelligence (AI).

It was the first match out of a total of five between Lee and Google DeepMind's AI, taking place at the Four Seasons Hotel in Seoul.

DeepMind's Aja Huang stood in for AlphaGo across from Lee to place the pieces. The game was tense throughout, with both the AI and the 33-year-old playing aggressively. Commentators and professionals at the hotel said it was impossible to predict who would win during the match.



Lee looked nervous throughout the game, but smiled once in the middle, when he seemed to be amused by AlphaGo's surprising skills and aggressiveness.

The game was even until mid game, but AlphaGo took the edge near the end of the match. After 186 turns, Lee shook his head and surrendered.

It is the first time that a computer has defeated a Go player ranked 9-dan, the highest skill level for the game.

For the live stream on YouTube, around 95,000 viewers tuned in simultaneously for the English

commentary version, and 56,000 for the Korean version near the end of the game.

Korean commentators expressed their shock at the defeat, and praised AlphaGo's sophisticated play.

DeepMind CEO Demis Hassabis tweeted mid-game : "extremely tense... Lee Sedol is famous for his creative fighting skills, AlphaGo going toe to toe. Incredibly complicated position. "

Go is a Chinese board game played by two players alternatively placing black and white playing pieces, with the goal to surround more territory than your opponent. Your opponent's stones can be removed by surrounding them with yours.

Commentator Michael Redmond, an American 9-dan champion himself, said AlphaGo was playing at a professional level, and has improved dramatically since his last match.

Alphabet executive chairman Eric Schmidt, who is visiting Seoul to watch the match, called the match "a win for humanity" in a press conference.

AlphaGo defeated a European Go champion 5-0 last October.

The second round commences tomorrow.

2016-03-09 08:03 *Cho* www.zdnet.com

15 Technolust: A Drone, a Projector, and a Radar Detector

The latest developments in Artificial Intelligence make the electronic assistants of today look obsolete

Surprisingly, yes, this is a gaming laptop

Some things never get old, like tropical Hawaii. Sapphire's R9 390 8GB shows the benefits of doubling down on VRAM, smoothing over a few rough spots.

2016-03-09 08:00 *Jimmy Thang* www.maximumpc.com

16 Security Think Tank: Many breaches down to poor access controls

The recent increase in large-scale company data breaches, such as VTech (5 million records exposed), Ashley Madison (37 million records exposed) and Experian/T-Mobile (15 million exposed), means data security is now a hot topic for all businesses across the globe. Although many of these breaches were a direct result of malevolent hackers finding technical weaknesses in company IT infrastructures, risks to data security have become apparent because company IT departments are simply failing to provide

adequate access controls to employees using its internal and cloud-based systems.

Smaller-scale data loss, however, is often as a result of authorised employees simply exploiting their privileged access rights. This is where user access control can be an extremely challenging area for many businesses, particularly larger organisations and multi-site corporates and especially in light of the increasing bring your own device (B YOD) trend. Many companies either err on the side of caution and apply too many restrictions or steer the other way, towards a complete lack of any meaningful user access control.

Allowing users too much access across systems is an extremely risky business, which is too easily overlooked. Putting a few simple measures in place can drastically reduce this risk, including the principle of least privilege (access) and read-only where possible, which should be applied to deny malware being installed. This will restrict possible access points for any malware or malevolent users as much as possible. Segregating access points by profile (roles, duties and functions) will also help limit what users can access without affecting their ability to work effectively. User access policies should also be mapped out so any shortfalls or oversights are identified, reviewed and re-evaluated regularly to ensure profiles are configured on a need-to-know basis.

2016-03-09 06:47 Paul Yung www.computerweekly.com

17 Researcher receives \$15000 through Facebook's bug bounty program

Researcher Anand Prakash has been awarded \$15,000 (50,550,000 UGX) through Facebook's bug bounty program after disclosing a password flaw which allowed attackers to access accounts with little effort.

The flaw, since fixed by Facebook, was a simple vulnerability that gave the researcher access to Facebook accounts without any user interaction.

"This gave me full access of another user's account by setting a new password. I was able to view messages, his credit/debit cards stored under payment section, personal photos etc." Prakash said in a blog post.

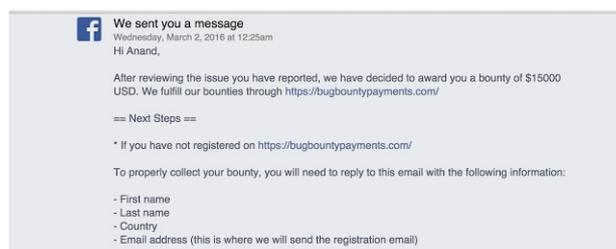
Prakash explained in his post that missing security protocols in some versions of Facebook made it possible for hackers to reset account passwords without the legitimate owner's knowledge.

Facebook's bug bounty program began in 2011, rewarding researchers, hackers and others, for reporting security flaws to the company. Other Tech Giants like; Google Inc. and Microsoft Corp. also offer similar bug bounty programs, which have sprung up over the last several years as cyber-crime has become ever more frequent and damaging.

According to CNET, Facebook's main website prevents hackers from requesting a reset for a given account and then simply running a program to guess the code without actually having to receive it from the social network. The site blocks the account after 10 to 12 failed log-in attempts. But on the beta pages beta.facebook.com and mbasic.beta.facebook.com the scenario played out differently for Prakash.

The security researcher said "rate limiting," or the anti-brute-force measure on the main website, was missing from the other domains. CNET adds.

Prakash notified Facebook last month, on Feb 22nd, because the flaw was serious and easily within the skill range of many cyber-attackers. After acknowledging the flaw, the social media giants, gave Prakash his bounty as a reward for responsible disclosure.



18 We bring you peas: Vegetables grown in simulated Mars dirt



Under the leadership of researcher Wiegier Wamelink, and building on their previous research, the team successfully grew ten different crops from soil simulants not just of Mars dirt, but of dirt found on the moon. These simulants were provided by NASA.

The vegetables, planted in April 2015 and harvested up to October 2015, included tomatoes, peas, rye, rocket, radish, leek, quinoa, chives, cress and spinach. They were cultivated in a glass house under the expectation that any Mars gardens will be covered to protect the plants from cosmic radiation.

Whether the team's improvements on its previous experiment could be replicated on Mars in exactly the same way could be achieved is dubious, but it does demonstrate that the dirt can be conditioned to support plant life.

The Mars soil simulant proved only a little less fertile than Earth soil, once fertilised. The Mars soil plants produced slightly less material than the Earth soil control crops, except for spinach, which showed poor production. The moon soil crop, however, only produced about half the material. Growing plants on the moon would be an uphill battle.

Growing plants on Mars isn't going to be smooth sailing, either. This is because Mars soil, and the Mars soil simulant, contains elements that would be very dangerous for human consumption. No one ate the harvested vegetables because further testing is required for their viability.

"The soils contain heavy metals like lead, arsenic and mercury and also a lot of iron. If the components become available for the plants, they may be taken up and find their way into the fruits, making them poisonous," Wamelink said.

2016-03-09 07:38 Michelle Starr www.cnet.com

19 Don't think that Brexit will save you from the EU data protection rules

Let's say you are responsible for cyber security in your organisation, and it's a UK-registered company.

You'll no doubt have heard about the new data protection rules, which are allegedly tougher than the current UK Data Protection Act 1998. The latest data rules, known as the General Data Protection Regulation (GDPR) , were agreed in Brussels in December 2015 and become enforceable in 2018.

You are aware of obligations on your organisation to fulfil a range of individual rights.

You will have an obligation to perform data erasure in response to individuals' exercise of their "right to be forgotten" – that is, the right to withdraw their consent to your storing or using their personal data and to request their data be deleted.

Then there is the obligation to ensure that any personal data you hold has been collected after obtaining consent that was explicit, rather than implied.

The data must be freely given, rather than under the duress of not being able to access your

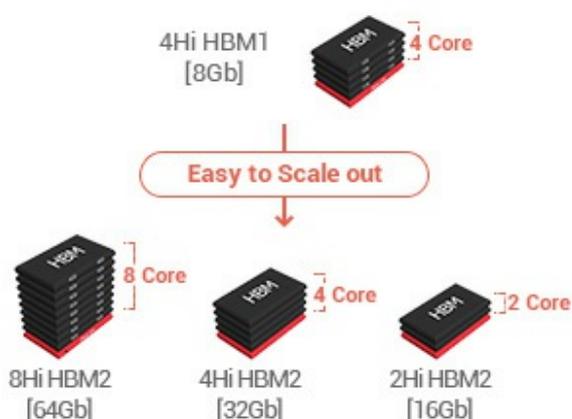
services. It must also be requested in clear and plain language and asked for in a distinctive “standalone” fashion.

You will also have an obligation to allow individuals to see their own data, to release a copy of any data you hold about them in a commonly readable format, so they can exercise the right to data portability – meaning they can transfer personal data from one service provider to another.

You will have to notify in 72 hours to the relevant data protection authorities – in the UK it's the Information Commissioner's Office – about serious data breaches and any affected individuals if the breach affects their fundamental rights.

2016-03-09 07:39 Chiara Rustici www.computerweekly.com

20 Report: SK Hynix will start mass-producing HBM2 memory this year



A new generation of graphics cards is coming, and memory chipmaker SK Hynix wants to be part of the revolution. According to the German IT website Golem.de, SK Hynix plans to start production of second-generation High Bandwidth Memory (HBM2) soon. 4GB SK Hynix chips are apparently slated for the third quarter of the year, and 8GB chips will arrive in the fourth quarter. With this move, SK Hynix provides some competition for Samsung, who already announced production plans for HBM2 memory.

This announcement follows standards body JEDEC's update of the HBM standard. HBM2 maintains the same bus width as HBM, but has higher clock rates and capacity. By increasing

the frequency of a stack from 1 Ghz to 2 Ghz, the data rate can reach 256 GB/s, twice as much bandwidth as the earlier standard.

Golem.de reports that SK Hynix also has plans for slower HBM2 variants. Capable of 204 GB/s, these chips might be destined for future mid-to-low-range graphics cards, or for another application altogether. The site says that SK Hynix declined to specify whether the chips were intended for GPUs, SoCs, CPUs, or another application.

2016-03-09 06:17 by Eric techreport.com

21 Plan your vacation with “Destinations on Google”

These days, mobile phones make it easier than ever for you to sneak in vacation dreaming and planning here and there, in line at the coffee shop, waiting at the doctor's office, or on your way to meet a friend.

Last year, according to internal data for google, there was a whopping 50% increase in travel related questions on mobile phones. But even as that number grows, it can be hard to get all the right info in one place on a small screen.

There are a dizzying number of questions to answer when planning a trip:

What are the best places to visit?



What time of year is good to go?

What kind of prices can I expect? And so on.

As of yesterday, the internet search engine, Google, introduced "Destinations on Google," something that will make all your travel plans easier. Destinations on Google only works on mobile devices.

Here's how it works:

Search with Google on your mobile phone for the continent, country, or state you'd like to travel to and add the word "destination" to see an easy-to-browse collection of options. Destinations integrates a deep understanding of all the places in the world with Google Flights and Hotel search, so you can see available flight and hotel prices instantly.

So instead of jumping between a dozen links or tabs to get the information you need, you can sit back leave the heavy lifting to google.

Finding a Vacation of your style:

To find a vacation that's just your style, search for a destination and something you'd like to do there, like "Spain surfing," or "Outdoor Recreation Mount Kilimanjaro" Google will suggest spots that fit with your hobbies and interests.

Destination on Google also has "Flexible Dates filter," that lets you refine your results by month, so you can see when fares and rates are lowest within the time range you want across multiple destinations.

If you want to avoid crowds or bad weather, Select any destination and tap the "Explore" tab to see what the weather is like year-round and when your destination is most popular, based on historic visits from other travellers.

Once you've selected a destination of your choice, tap "Plan a trip" to see rates for hotels and flights. The results instantly update with real-time fares and rates, pulling from the trillions of flight itineraries and hotels we price every day on Google Flights and Hotel search.

You can also tap the pencil icon to customize results further with flight and hotel preferences, including number of stops, hotel class, and number of travellers.

2016-03-09 06:34 *Nathan Ernest pctechmag.com*

22 India files complaint against US visa fee hike



India has turned the World Trade Organisation (WTO) against the United States' decision to increase fees on certain applicants for two categories of non-immigrant temporary working visas -- the L1 and H1B.

Following the complaint, the WTO, in a communication to the US administration on Tuesday, said that it was looking forward to receiving the US government's reply to India's request and to set a mutually convenient date and venue for consultations.

In a statement, the WTO said that India has initiated a dispute proceeding against the US regarding measures imposing increased fees on certain applicants for L1 and H1B categories of non-immigrant temporary working visas into the US, as well as measures relating to numerical

commitments for H1B visas.

"The government of India is of the view that these and comparable measures taken by the US are not in conformity with some of the provisions of GATS such as Articles II, V:4, XVI and XX and paragraph 3 and 4 of the GATS Annex on Movement of Natural Persons Supplying Services. These measures also appear to be inconsistent with Articles III:3 and IV:1 of the GATS," the WTO said.

If no agreement is reached between both sides within two months, the WTO dispute resolution tribunal will decide on the complaint.

The US government has doubled the fees for temporary work visas for skilled professionals like H1B and L1 visas to \$4,000 and \$4,500 respectively. India is the largest user of H1B and L1 visas -- taking 67.4 percent of the 161,369 H1B and 28.2 percent of the 71,513 L1 visas issued in FY14.

US President Barack Obama signed into law the Consolidated Appropriations Act 2016 on December 18, 2015, with the provisions applicable to companies that employ 50 or more persons in the US with more than 50 percent of them holding H1B or L1 non-immigrant status. This will remain effective till September 30, 2025.

Despite repeated requests from the Indian government, the US administration went ahead with its decision, which came into force on December 18, 2015. The US decision is expected to impact the Indian IT and ITES industry.

The complaint is viewed as "tit for tat" against the superpower, which has used the WTO as a forum to snub Indian government's plans to encourage its solar industry by offering subsidies to the manufacturers, as well as reduce its dependence on Indian imports, something encouraged as part of Prime Minister Narendra Modi's Make in India program.

The US is the biggest exporter of solar energy equipment and its industry is expected to be adversely impacted by Modi's decision.

According to a study conducted by NASSCOM, a trade body representing the Indian IT and ITES sector, IT companies have been remitting around \$80 million to the US each year and with the latest decision, the industry will have to cough up between \$1.4 billion and \$1.6 billion every year for a decade.

In its complaint, India claimed that the US measure was inconsistent with US commitments under the General Agreement on Trade in Services, amounted to discrimination, and put its temporary workers on a lesser footing compared to American workers.

In a related development, even the UK government has decided to increase visa application fees from March 18, and this also will impact the Indians planning to live and work in Britain.

In a notification, the UK Home Office said that the settlement, residence, and nationality fees will be increased by 25 percent, while optional premium services such as the super-premium service and priority visa services overseas would be increased by 33 percent.

"These changes ensure that the Home Office can achieve a self-funding system whilst continuing to provide a competitive level of service and a fees structure that remains attractive to businesses, migrants and visitors," the Home Office said in a statement.

A report from the Office for National Statistics said that as many as 85,403 Indians were granted entry clearance visas (excluding visit and transit visas) in 2015, followed by China, which topped the list of ten countries with 93,076.

23 ACMA announces consolidated government spectrum

The Australian Communications and Media Authority (ACMA) has announced that it will be implementing an option for all governments to consolidate their spectrum licences down to just one in the 400MHz band.

According to the government agency, this will lead to substantial cost savings, as well as more efficient use of spectrum.

"In the 400MHz band, a major cooperative effort has reached the halfway point ... perhaps, most importantly, delivering harmonised government spectrum in the band, which is a critical element in achieving nationwide inter-operability," Richard Bean, who became acting ACMA chairman last month after Chris Chapman's 10-year tenure as chairman ended, said at the ACMA's RadComms event in Sydney on Wednesday.



"I can announce today the creation of a new flexible licensing option for government licensees in the 400MHz band. Under this option, state government, for example, will be able to consolidate its thousands of licences down to just one, dramatically reducing management overhead, providing additional technical flexibility, and enabling a more coordinated approach to spectrum use.

Bean added that the migration of existing government services is "well advanced", with wireless communication requirements being consolidated across multiple government agencies.

The ACMA in February released its strategy for allocating and refarming mobile broadband spectrum, identifying a more flexible and "holistic" approach for allocating spectrum rather than the previous strictly quantitative process.

The ACMA outlined five strategies for ensuring mobile broadband capacity into the future: Taking into consideration spectrum, technology, and network infrastructure when addressing mobile broadband capacity growth; determining a transparent spectrum management process for identifying options for mobile broadband spectrum; making use of the lengthy period of time prior to additional spectrum being required so as to minimise the impact on telcos of refarming; examining sharing of spectrum between mobile broadband and other services; and engaging in international discussions on and influencing harmonised spectrum options.

Australian Mobile Telecommunications Association (AMTA) CEO Chris Althaus hailed the mobile broadband strategy on Wednesday, saying it "reflects the times", has a "high level of transparency", and balances efficiency, flexibility, certainty, and simplicity.

"The suite of five strategies broadly get a thumbs up from us," Althaus said at RadComms.

Althaus added that spectrum regulation must keep pace with technological innovation.

"The regulatory system that is so fundamental to the ACMA must evolve in the same way that the market and the industry is, to reflect the changes that we're having to cope with, and to enable those changes to occur efficiently," Althaus said at RadComms.

"Infrastructure is such a critical part of that equation, and of course spectrum is central to that. "

International Telecommunications Union (ITU) secretary-general Houlin Zhao, the keynote speaker, emphasised the importance of spectrum in the world today.

"It's my full belief that in the future, nothing can happen, nothing can be that effective, nothing can be enjoyed by people if it's not linked with spectrum," he said.

The tech giants of the world are all chiming in on spectrum discussions, the ITU secretary-general said, because it is becoming critical to service delivery.

"Google, Facebook, and others joined the ITU as new members, and this year, on 19th of February, ITU announced the latest member of Alibaba. Those internet giants, one after the other, started to join the ITU," he said.

"Facebook and Google came to join ITU mainly for spectrum-related issues ... Amazon also joined the ITU because they'd like to use drones to deliver their goods. They told me that in future, this new service will require lots of spectrum harmonisation. "

Such international spectrum harmonisation was discussed at the World Radiocommunication Conference (WRC) last year, with Zhao saying that the ACMA played a central part in bringing this discussion to the table.

"The Australian delegations played a very, very important role, sometimes a key role, to push for common positions," he said.

"Australia is always far-looking, and you're preparing yourself very well for the future. "

The ACMA also provided an update on the spectrum bands that it is currently monitoring, saying it has added the 4.9GHz band, which, alongside the 3.3GHz band, will be considered for shared access.

"3.3 and 4.9GHz -- so these were added as a result of the [WRC] conference where there was a degree of international interest in harmonisation shown behind them ... The question that we're having to [ask] ourselves is: Is this an opportunity for some innovative sharing-type opportunities? " said the ACMA's Chris Hose.

"There's this approach being investigated around the world called 'licensed shared access', where an incumbent retains their rights in the band and a new entrant works around them using a variety of policy and technology options. "

Hose said this is being examined in France presently, and the ACMA will consequently be considering the option. The government agency is planning to speak with interested parties "in the near future".

The ACMA is also monitoring the 600MHz band and the WRC-identified bands; is conducting initial investigations of the 1.5GHz band, which Hose said would be targeted in late September 2016, and the 3.6GHz band, which will be targeted in March 2017; and is currently refarming the 850MHz expansion band; the 900MHz band; and the 1800MHz regional band.

The 1800MHz band was in January successfully auctioned off, with a total of AU\$543.5 million spent between the four major telecommunications providers. The high-band spectrum will improve 4G coverage in regional and remote Australia, bringing high-speed broadband to those living outside of the major cities.

The 850MHz band is being expanded for mobile broadband services, while the 900MHz band will be reconfigured.

Chapman also recently told ZDNet that the ACMA is looking towards facilitating the spectrum needs associated with machine-to-machine (M2M) technology and the Internet of Things (IoT) , with the ACMA releasing a set of proposed changes to spectrum regulations aimed at providing easier access to spectrum for M2M operators utilising spectrum for the IoT.

In a similar vein, the ITU secretary-general announced on Wednesday that the United Nations will continue supporting the ITU due to the spectrum concerns of burgeoning technology.

"The UN has agreed to support us ... [to] address the new challenges of the information society, including new technology such as the IoT, 5G, cloud computing, and internet-related issues such as cybersecurity," Zhao said.

Total 23 articles.

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