news

UPDATES ON TECHNOLOGIES, TRENDS, AND TOOLS

This Month

Welcome to the newly retooled News section. My name is Trevan McGee, and as Linux Pro's news editor, I'll be bringing you the best of our national and international news, along with my own take on trends and topics in the open source community. As open source technology continues to grow and evolve, Linux distros are more prevalent and more easily available than ever before. Linux runs on our cloud servers, in many of our mobile and embedded devices, and on our DVRs and other set-top boxes.

What's more, open source software has never been more widely available or popular. Open source applications like the Firefox browser and the OpenOffice suite are running on computers around the world. Meanwhile, the Ogg codec continues to thrive, offering an MP3 alternative that is both better sounding and more compact.

The News section will incorporate all these examples of open source technology and more as we look at the software and hardware that affect the community and the community that affects the software and hardware. We'll study the technologies on the horizon and the obstacles that are already here. We'll discuss policy, ethics, and the open source environment, and we'll try to approach these topics with the same level of honesty and community spirit that makes the open source world so vibrant and vital.

As with all open source projects, collaboration is key. If a particular news topic makes you angry, excited, nervous, or bored, join the discussion at *linuxpromagazine.com.* We update the site regularly and welcome dialog with our readers.

Enjoy the retooled news section and the return of Tech Tools. And if you ever have a tip or an item that you think deserves better coverage, email me at tmcgee@linuxpromagazine.com.

MORE NEWS ONLINE

Mozilla Announces Firefox 4
http://www.linux-magazine.com/Online/News/Firefox-4-to-be-Super-duper-Fast

LinuxCon Brazil 2010 lineup announced
http://www.linux-magazine.com/Online/News/LinuxCon-Brazil-2010-Lineup-announced

Android Becomes No. 2 Mobile OS
http://www.linux-magazine.com/Online/News/Android-Becomes-Number-2-Mobile-OS-on-the-Market

The State of Flash
http://www.linux-magazine.com/Online/News/The-State-of-Flash

Open Source Codecs

Google announced via its open source blog its commitment to an ARM-optimized version of the Ogg Theora video codec in an attempt to create a baseline video standard for mobile devices.

Developed by Robin Watts, the TheorARM codec is based on the Ogg Theora codec. And like Ogg Theora, it's a completely free open source codec, expressly intended to allow video playback on any platform.

"If you're publishing video on the web, you want everyone to be able to view it. It shouldn't matter if they are using a desktop or a laptop or a netbook or a phone. It shouldn't matter if they are running Linux or Windows or Mac OS. It shouldn't matter if they are using Firefox or Chrome or IE or Safari or Opera. All that matters is that everyone should be able to view it," Watts said.

Google's grant allowed Watts to move the Theora license from GNU General Public License (GPL) to a 3-Clause Berkley Software Distribution (BSD) license. 3-Clause BSD is jointly recognized as an open source and GPL-compatible license by the Open Source Initiative and the Free Software Foundation, respectively. 3-Clause BSD, or New BSD, as it's often referred to, allows unlimited redistribution as long as all warranty disclaimers and copyright notices remain unchanged. The license also restricts naming contributors for endorsement of a derived work unless specific permission is given.

Moving the license to BSD also allows the TheorARM code to be rolled back into the Theora code, which lets Watts's own code become more standardized and accessible for other developers.

"A few years ago, it was unthinkable that you could realistically use the internet from a phone – nowadays, with people accessing email, the web, Facebook, and a million other apps, it's becoming commonplace. Having your phone be able to cope well with the same video standards used by the desktop will only improve this," said Watts.

Google's decision to fund an open source video codec for mobile devices goes hand-in-hand with the company's roadmap for the coming years. At April's Atmosphere Cloud Computing Summit, CEO Eric Schmidt laid bare the company's plans for Chrome OS, Android, and the devices he hoped they would power.

"We operate under the assumption that people will carry mobile devices with them all the time, that these mobile devices will be always connected (to) one data network or another, for obvious reasons, and that there are applications that we can build or that others can build on top of our platform that will materially make them more productive, better at work, have more fun, (and) be better entertained," Schmidt said during a Q and A session.

Developing a truly free video codec that can be played in-browser or via standalone player that is optimized for mobile devices and integrated into the Chrome OS and Android operating system makes perfect sense. Now, it's rumored that the company is planning to open the VP8 codec at May's Google I/O Conference and that both Mozilla and Google are expected to announce browser support.

About Ogg Theora

The Ogg Theora codec is a variation of On2 Technologies's VP3 codec that is maintained by the Xiph.Org Foundation. Firefox 3.5, Google Chrome 3.0.182.2, Opera 10.5, and SeaMonkey 2.0 support the format in-browser. VLC, Helix Plaer, FFmpeg, Songbird, and all GStreamer or libxine-based players support the Ogg Theora format.

Google acquired On2 in February 2010 for US$ 133M. The Theora player, as well as its development tools, are freely distributed at *xiph.org/downloads*. The Ogg Theora codec takes its name from Theora Jones, Amanda Pays' character on "Max Headroom."

NEWS BITES

Firefox 3.6.4 Beta
The Firefox 3.6.4 beta is available for download and testing. Version 3.6.4 relegates plugins to their own processes, which means a Flash or QuickTime failure no longer crashes your browser. Instead, you just refresh the page. Find the beta at *http://www.mozilla.com/firefox/all-beta.html*.

Google Cloud Print
Google announced that Chrome OS will support a feature called Google Cloud Print, which aspires to allow "any app (web,desktop, or mobile) on any device to print to any printer anywhere in the world." For more on Google Cloud Print, see *http://code.google.com/apis/cloudprint/*.

HP Buys Ailing Palm
After speculation that either HTC or Lenovo would buy ailing smartphone and PDA manufacturer Palm, HP walked away with the company for US$ 1.2B. Palm, maker of the Linux-based webOS that has powered their Pre and Pixi smartphones will continue to manufacture hardware, but HP is particularly interested in webOS and its potential in mobile devices, not just smart phones. Expect a webOS-powered HP tablet sometime in the future.

Torvalds at LinuxCon Brazil
LinuxCon Brazil 2010 gets a trio of open source luminaries for the inaugural keynote: Linus Torvalds, Linux Foundation's Jim Zemlin, and kernel maintainer Andrew Morton. Early registration is US$ 150 through June 15. The event begins August 31.

"Don't Copy This Code"
Google's Open Source Blog announced new source code for Jarlsberg, a feature-rich microblogging web app, then asked the community not to download it. What gives? Jarlsberg, built to be vulnerable, showcases every known security exploit facing a Web app – so learn from it, just don't copy it.

SEC Proposes Python for Wall Street

The US Securities and Exchange Commission published a 667-page proposal that, among other things, outlined the creation, implementation, and use of Python scripts that would annotate Asset-Backed Securities (ABS), allowing potential investors to view the details of an ABS's pool asset performance. These details include the interest rate, level of prepayments, defaults, and losses-given-defaults, among others.

The Waterfall computer program, as it's called in the proposal, would allow an investor to retrieve a runnable Python script from the Electronic Data-Gathering, Anaylysis, and Retrieval (EDGAR) system, the SEC's public database. Asset data would be encoded in XML and available for processing by this script.

The proposed program would provide potential investors with detailed information about an ABS. In doing so, the program would effectively reduce (but not eliminate) an investor's dependency on third-party analysis by providing updated information currently available only in the prospectus.

"ABS prospectuses are very difficult to understand. I have been reading the Goldman ABACUS prospectus (196 pages), mentally translating it into pseudo code and I find that it does become clearer," said Prof. Jayanth R. Varma, Indian Institute of Management.

Varma, who specializes in financial markets and their regulation, thinks that, post-crisis, it is necessary to reduce the reliance on rating agencies. Open source software allows investors to do that.

The proposal states that, by running the waterfall computer program in combination with other internally developed or commercially available vendor interest rate, prepayment, default and loss-given-default models, cash flow engines, or computational services, investors should be able to promptly run cash flow simulations and generate present value estimates for ABS tranches.

The proposal requires creation of an asset data file every time an ABS and final prospectus are registered. The asset data file is then uploaded to EDGAR. Potential investors or the curious public can download the file and view it within The Waterfall computer program. Investors also can input their own predictions regarding pool asset performance. Credit card master trusts would also be required to use the Waterfall computer program anytime a Form 8-K is filed. Typically, a Form 8-K is filed to inform investors of any major changes. This includes, but is not limited to, bankruptcy, material impairments, and completions of acquisitions.

The SEC chose Python specifically because it is open source and available freely to anyone. Its status as an interpreted language is also in line with the SEC's rule to keep executable code off of EDGAR for security reasons.

"Python is easy to learn and understand. It is increasingly popular in finance," Varma noted.

The Waterfall program can collaborate with other investment software, as long as users disclose, via a separately filed exhibit, the functionality. The SEC is also open to another open source language replacing Python and are taking suggestions from the open source community.

Linux Users Sue Sony

On April 1, Sony released firmware update 3.21 for the PS3, an update that disabled the *Install Other OS* function on the older, bulkier PS3s. Sony's official reason: "Security Concerns."

The update led to a variety of bugs, including slowed internet connections, controller compatibility issues, and resolution issues when using HDMI – if the update installed at all; some reported the download cycle hit an endless loop and never fully completed.

Only a sliver of the open source community used the PS3 to run Linux or Ubuntu, but Sony's decision to cut them out is still disappointing.

In response, European users have taken advantage of European directive 1999/44/EC to get UK£ 84 out of Amazon.co.uk. The directive states that commercially purchased goods must be "… fit for the the purpose which the consumer requires them and which was made known to the seller at the time of purchase."

Following the European lead, California resident Anthony Ventura filed a class action lawsuit against Sony for disabling the *Install Other OS* option. The suit claims that disabling this option is "not only a breach of the sales agreement between Sony and its customers and a breach of the covenant of faith and fair dealing, but it is also an unfair and deceptive business practice perpetrated on millions of unsuspecting customers."

Bulky Playstations purchased between November 17, 2006, and March 27, 2010, fall under the lawsuit's umbrella. Anyone who purchased a bulky PS3 during that time is automatically included in the suit. Damages sought are in excess of US$ 5 million.
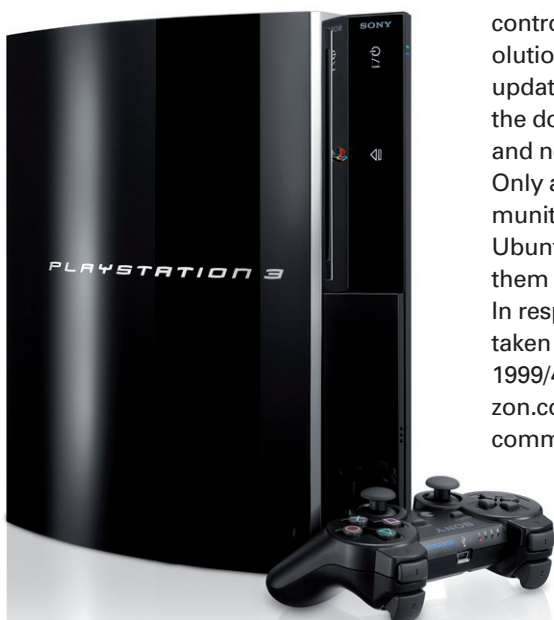
Italian Open Source Competence Center

The Italian Center of Competence for the Open Source initiative is a joint effort between Engineering Ingegneria Informatica, the Univeristy of Sannio, the University of Insubria, and the University of Bolzano.

The center's primary goal is to provide user support to publicly funded institutions and small- and medium-sized enterprises that use open source software regularly. Additionally, the center will promote the adoption of open source in Italy, a country that has been slow to embrace open source solutions (at least by European standards).

An October 2009 Constitutional Affairs Committee hearing reported that only 35% of local governments utilize open source software in any capacity. "This scenario places the Italian Competence Center for Open Source in front of a very ambitious challenge: to contribute, including through partnerships with other central and local initiatives already underway, with a sharp reversal of this trend," the center states on its homepage.

Judge Sides with Comcast
FCC's Authority Called into Question

Internet Service Provider Comcast can safely return to throttling subscribers' bandwidth, as a US appeals court overturned a Federal Communications Commission (FCC) mandate that required the company to provide service indiscriminately to its users.

The decision itself raises some interesting questions about the FCC's authority and its role in regulating neutrality. According to the US Court of Appeals' 3-0 decision, the FCC has not been expressly given the "untrammeled freedom" by Congress to regulate a provider so directly.

The FCC states that the court doesn't disagree with net neutrality or the equal treatment of subscribers and that the commission is able to pursue other means of regulation.

That said, the decision does, at least for the time being, allow ISPs to set bandwidth caps and throttle peer-to-peer file sharing. The decision comes at a time when the FCC is preparing a plan that would both increase the overall speed of broadband and increase the coverage area.

In response, FCC chairman Julius Genachowski has formulated a new approach to regulation that would give the commission the authority necessary to oversee broadband providers without subjecting said providers to unnecessary requirements.

In a statement titled, "The Third Way: A Narrowly Tailored Broadband Framework," Genachowski made it clear that he believed the FCC's role was to protect consumers against anticompetitive or unreasonable conduct by service providers without directly regulating the Internet itself.

"FCC policies should not include regulating Internet content, constraining reasonable network management practices of broadband providers, or stifling new business models or managed services that are pro-consumer and foster innovation and competition," Genachowski said in the statement.

Genachowski calls the FCC's ancillary role in broadband too piecemeal to be effective, but at the same time points out that reclassifying broadband as telecommunication would give the FCC direct oversight, but subject broadband providers to excessive regulations.

In Genachowski's and the FCC lawyers' assessment, the third way allows the FCC to regulate the transmission component of broadband as they would a telecommunications service, while ignoring any unnecessary provisions that could hinder competitive business models. This approach also would reinstate several provisions overturned in the Comcast v. FCC case without stifling capitalist ingenuity and gives the FCC the leverage necessary to push forth its National Broadband Plan.

Others don't see the plan as the proper catch-all approach Genachowski claims it to be. FCC commissioners Robert McDowell and Meredith Baker said the plan would discourage providers from investing in their networks, whereas House Republican leader John Boehner said that the plan effectively nationalized the Internet.

Microsoft to Develop Open Source Platform

Microsoft developer Garrett Serack announced plans to bring a natively running open source platform to Windows.

The project is known as the Common Opensource Application Publishing Platform (CoApp). In his blog, Serack outlines the challenges of developing open source applications in a Windows environment and the differences between developing on Unix, Linux, and Windows. He states that CoApp will:

- *Provide a distributed, community-driven package management system for open source applications on the Windows platform.*
- *Handle multiple versions of binaries using WinSxS (I know, even the mention of side-by-side components evokes fear, anger and the desire to go off-diet, but bear with me, I think we've got a solution), including multiple copies of the same version of the same library, compiled with different compilers.*
- *Support 64-bit and 32-bit systems, without hassle or collisions.*
- *Place binaries, libraries, and header files in a logical and consistent location.*
- *Have tools and methods for handling dependencies.*
- *Create reliable installer packages (MSIs) for installing open source software.*
- *Facilitate sharing of components and allow multiple projects to both participate and consume them easily.*
- *Allow for upgrades and patching of both libraries and applications.*
- *Be Windows developer-friendly. No forcing of building using* `make`*, but rather, taking advantage of the nifty IDEs we already have.*
- *Also be Windows admin-friendly. Even if it's open source, you shouldn't have to be a developer to put open source applications on Windows.*
- *Use advanced optimization techniques like Profile Guided Optimization to produce optimized binaries.*
- *Support future technologies as they come along.*
- *Aid in the adoption of Windows Error Reporting (WinQual) to assist in making software run better on Windows.*
- *End the eternal struggle between Green and Purple. Unless of course you're a Drazi and are conducting elections.*

This announcement marks a major turnabout for Microsoft, a company once known for its strong opposition to open source software. During an interview with The *Chicago Sun-Times* in 2001, Microsoft CEO Steve Ballmer likened Linux to a cancer, saying that it, "… attaches itself in an intellectual property sense to everything it touches."

One thing Serack's exceptionally detailed post failed to mention is a timetable. Although he does hint at a schedule in a comment response: "I hope that you'll be pleasantly surprised a year from now."

For additional information on the CoApp project, head to the CoApp website at *http://coapp.org/.* Serack actively responds to comments, but he recommends that potential commenters join the CoApp mailing list at https://lanchpad.net/~coapp-developers.

WhiteHouse.gov Releases Drupal Code

James Steidl, Fotolia

As part of the Obama Administration's commitment to open source platforms in government, Dave Cole, the manager of WhiteHouse.gov, announced that the administration would release custom code back into the Drupal community.

The four custom-built modules enhances the scalability, communication, and accessibility of Drupal. The White House has added and extended several features of the Drupal codebase. The Node Embed module improves screen-reading software support by way of adding metadata to rich photos and video content. The Gov-Delivery module allows for more dynamic email on the basis of user preferences, and the Context HTTP Headers module assist with caching decisions. The Akami module allows Durpal integration with the Akami CMS.

This is the first offering White-House.gov has made to the open source community since the site migrated to the Drupal open source web platform in October 2009.

Web Desktop with Guacamole

Linux users looking for a cheap, open source way to access computers remotely should check out the Guacamole project.

According to developers, Guacamole makes use of a server-side VNC-to-XML proxy written in Java and is almost as fast as native VNC. Guacamole should work within any browser that supports HTML5. Version 0.2.1 was just released and fixes a bug that affected the clipboard when copying Unicode text. Version 0.2.0 adds scroll wheel and clipboard support.

In addition to the servlet server-side VNC-to-XML proxy, a VNC server for X is also necessary. As the project continues to develop, users eagerly await the prospect of being able to access a desktop from any computer remotely without a native VNC client.

Guacamole is licensed under the AGPL.

FSFE Founder Awarded German Cross of Merit

Free Software Foundation Europe (FSFE) founding president Georg Greve was awarded the German Cross of Merit for his intervention on the part of free software and open standards. North Sea islander Georg Greve was given the award April 27 at the German Embassy in Berne, Switzerland. The honor is based on Greve's service as founder and long-time president of the FSFE. Greve is a leading spokeman for the GNU Project and author of the "Brave GNU World" column, which used to run in this magazine. Emphasis was on his support for open standards of particular interest to the German state department in light of the recent Document Freedom Day.

In 2009, Greve gave up his eight-year presidency of the FSFE to Karsten Gerloff to become CEO of Kolab Systems in Zurich. The FSFE recently was granted the Theodor Heuss Medal for its vision and for setting an example of democratic principles and collaborative values.

Linux Foundation Announces LinuxCon Speakers

The Linux Foundation announced the keynote speakers for the 2010 LinuxCon in Boston, August 10-12. The foundation also confirmed the return of the Linux Kernel Roundtable and the inclusion of mini-summits to take place during the days before LinuxCon kicks off.

Without further ado, the confirmed keynotes are:

- Rav Simhambhatla, VP and chief information officer at Virgin America. Simhambhatla will explain how he convinced internal colleagues to adopt Linux and open source technologies for their business.
- Eben Moglen, founding director of the Software Freedom Law Center. He will discuss legal defense for open source and give an update on GPLv2 and GPLv3.
- Jeffrey S. Hammond, principal analyst for Forrester Research. Hammond will present encouraging data regarding adoption and awareness of open source platforms and discuss the benefits of a mixed-source development model.
- Stormy Peters, executive director of the GNOME Foundation. Peters will discuss cloud data storage and the effect it has on Linux and open source.

"The LinuxCon keynotes and panels represent the Linux ecosystem and its major insiders – from the developer, business, operations, and legal communities," said Jim Zemlin, executive director at The Linux Foundation via press release.

The mini-summits that debuted at LinuxCon 2009 also make a return. Mini-summits are a series of focused forums designed to connect users with developers in intimate tutorial settings. Among the mini-summits offered this year are the Linux Storage and Filesystem Summit (also offered on August 8), as well as summits on Xen Directions, KVM Forum, Linux Security, Bluetooth, Tracing, and Power Management.

Finally, The Linux Foundation announced the kernel developers on hand for the roundtable. They are: James Bottomley, Jon Corbet, Dave Jones, Chris Mason, and Ted Ts'o.

Registration is US$ 400 for non-students and US$ 100 for students. A LinuxCon registration plus co-located training package is available for US$ 1,600.

If you can't make it, we'll be providing interviews and news. For a rundown of LinuxCon 2009 check our streaming archives at linuxpromagazine.com/linuxcon/.

Unity Desktop & Ubuntu

At the Ubuntu Developer Summit in La Hulpe, Belgium, Canonical offered a first glimpse at Unity, a refined desktop environment designed for PCs, netbooks, and touch-based devices. Unity includes a revised panel and application launcher that makes it easier to access the most used applications. Functions such as Web search and email inbox are pinned to the system tray.

Alongside Unity, Ubuntu announced Ubuntu Light, a 10-second boot implementation of the popular Linux distro that gives users an "instant-web" experience.

Ubuntu Light comes equipped with chat, media player, web browser, and IM applications. The operating system is intended to be part of a dual-boot system for commercial PCs, but it can run fine on its own.

Unity and Ubuntu Light complement each other, in that both the desktop environment and the operating system offer simplified but functional versions of the traditional Ubuntu experience.

Ubuntu Light is available to PC OEMs by contacting Cononical directly at *oem@canonical.com.*

Unity is already available for Ubuntu 10.04 LTS.

TECH TOOLS

Lightworks Video Editor Goes Open Source

The Lightworks video nonlinear editing program will be released as Lightworks Open Source in the fall of 2010.

Lightworks is targeted primarily at professional video editors. The nonlinear editing solution (NLE) was acquired August of last year by the EditShare company, whose core products are multimedia storage and backup solutions. Releasing Lightworks under a free license would thus help EditShare in finding a community willing to further develop and add extensions to the product.

According to EditShare's press release, a free download of Lightworks should be available in the third quarter of 2010. The software would then be accessible to developers to build add-ons and plugins. An online marketplace will also provide commercial opportunities. When Lightworks is to go completely under a free license, and which license, is still to be decided.

Netgear Gigabit Firewall

Netgear's ProSafe Quad WAN Gigabit SSL VPN Firewall (SRX5308) becomes the first business-grade firewall to offer gigabit speeds at less than US$500.

The SRX5308 contains four Gigabit Wan ports and features a hardware-accelerated architecture that allows 1 Gbps LAN-to-WAN throughput. It supports up to 50 SSL VPN tunnels and up to 125 IPsec VPN tunnels.

The SRX5308 guards against denial-of-service attacks and can perform URL keyword filtering. Other features include e-mail reporting and real-time alerts.

The SRX5308 comes with a variety of automation features, including ISP Auto Detection, an install assistant, an IPsec VPN wizard, and the web-based ProSafe Control Center GUI.

The SRX5308 is compatible with Windows, Linux, Mac, and Unix operating systems.

IBM Launches New Power7 Blades, Systems Software

IBM's newest members of the BladeCenter family come in four, eight and 16 cores-per-blade models, all of which perform 64-bit processing.

The system can be used in conjunction with IBM's proprietary Director software, which manages computing resources to focus on priority tasks and workloads. With Systems Director VMControl, both virtual and physical environments can be maintained from a single interface. IBM claims that this approach can cut administration costs by up to 34 percent and an additional 30 percent can be saved on energy costs with IBM Active Energy Manager 4.3.

IBM also announced the eight-core Power 780 system.The 64-core Power 780 delivered 1.2 million transactions-per-minute using eight of its cores.

CloudLinux: More Hosting Accounts

The CloudLinux company in Princeton, NJ USA has released its like-named operating system in version 5.5. The LiteSpeed web server is now partnering with CloudLinux to provide a corresponding version 4.0.14.

CloudLinux is based on the GPL sources of Red Hat Enterprise Linux. The new 5.5 release is synchronized with CentOS of the same version. TheLightweight Virtual Environment (LVE) allows customers in Web hosting and data center operations to provide isolated environments within a single operating system instance. The process caps the resources of individual environments so that they don't bring the whole system down. Cloud Linux promises that the feature can thereby provide more hosting accounts with no change in hardware.

CloudLinux is available for free download for Intel 32-bit and 64-bit processors. The company also sells subscriptions. The download page includes a script to migrate from CentOS to CloudLinux and instructions on how to enable Apache LVE support.

Nimsoft SaaS Monitoring

Nimsoft's aptly named Nimsoft On Demand is a Software as a Service (SaaS) program designed to monitor IT infrastructures without the need to purchase additional monitoring hardware and software.

With adjustable subscription fees, Nimsoft on Demand allows a company to scale its IT monitoring needs so that no money is wasted on over-extensive coverage and no productivity is lost to inadequate monitoring.

Nimsoft on Demand is based on Nimsoft Monitoring Solution. It is capable of monitoring external IT resources such as Salesforce.com and Google Apps and internal IT resources such as Microsoft Exchange servers. Nimsoft on Demand also supports virtualized data centers. Nimsoft is a business unit of CA, Inc. For more information visit nimsoft.com.

Cortado to Enhance Google Cloud Print

The mobile printing specialists at Cortado have been tasked by Google to optimize printing from the cloud in Chrome OS. Cortado, a division of ThinPrint AG, already enables mobile devices to print through the cloud by using a massive library of printer drivers to communicate with a printer that that is connected to the same network or via bluetooth.

Cortado's solution will develop a plugin for Chrome that will allow documents to be printed from the same network. Cortado will also expand printing support to apps that weren't created in-house by Google and offer a private cloud solution for major businesses.