A cyber security analyst works in a watch and warning center at a Department of Homeland Security cyber security defense lab in Idaho.
REUTERS/JIM URQUHART

## Top executives talk cyber crime, over-the-top TV, and gloomy economy

# Cyber Security Strike-Back

If the world's superpowers face off in another major war, the winner will likely be determined in cyberspace. Only a handful of cyber weapons have been identified to date: The notorious Stuxnet worm that attacked Iran's nuclear program and its data-stealing cousin Duqu. Researchers just uncovered the highly complex Flame. Meanwhile online crime is flourishing. The unpublished music of Michael Jackson is among the booty that cybercriminals have recently claimed. Financial fraud scams target consumers and businesses alike. Nation states run far more sophisticated campaigns to steal intellectual property from rival governments as well as businesses across virtually all industries. The Reuters Global Media and Technology Summit in New York, Paris and London brought together some of the world's top cyber security experts to talk about the latest trends in cyber security. We also asked more than 30 industry executives to address broader trends affecting the technology and media sectors.


Eugene Kaspersky, Chairman and CEO of Kaspersky Labs, speaks at a Tel Aviv University cyber security conference June 6, 2012. **REUTERS/BAZ RATNER**

# Some Flame code found in Stuxnet virus: experts

BY JIM FINKLE AND JOSEPH MENN
JUN 12, 2012

Two leading computer security firms have linked some of the software code in the powerful Flame virus to the Stuxnet cyber weapon, which was widely believed to have been used by the United States and Israel to attack Iran's nuclear program.

Eugene Kaspersky, chief executive of Moscow-based Kaspersky Lab, which uncovered Flame last month, said at the Reuters Global Media and Technology Summit his researchers have since found that part of the Flame program code is nearly identical to code found in a 2009 version of Stuxnet.

Later in the day, the largest security firm, Symantec Corp, said it had confirmed that some source code had been shared.

The new research could bolster the belief of many security experts that Stuxnet was part of a U.S.-led cyber program still active in the Middle East and perhaps other parts of the world.

Flame is the most complex computer spying program ever discovered and appeared to be aimed at government and energy-industry offices in Iran, Israel, the Palestinian territories and Sudan. It has the capacity to steal or alter electronic documents. Flame has 20 times as much code as Stuxnet and hijacked Microsoft's process for automatic updates in order to install itself.

Although neither Kaspersky nor Symantec said who they thought built Flame, news organizations, including Reuters and The New York Times, have reported the U.S. and Israel were behind Stuxnet -- which was uncovered in 2010 after it damaged centrifuges used to enrich uranium at a facility in Natanz, Iran.

Instead of issuing denials, authorities in Washington recently launched investigations into leaks about the highly classified project. The White House declined to comment.

On Stuxnet and Flame, "there were two different teams working in collaboration," Kaspersky told the Reuters Summit in London.

Flame is a highly sophisticated computer virus that disguises itself as common business software. It was deployed at least five years ago and can eavesdrop on conversations on the computers it infects and steal data.

Security experts have suspected links among Flame, Stuxnet and Duqu -- another piece of malicious software that was discovered last year -- but Kaspersky Lab was the first to say it found hard evidence.

**REUTERS TV**

See the video http://link.reuters.com/fyv78s

Late on Monday, Symantec research manager Liam O Murchu agreed, using his company's name for the newest virus, Flamer. "Symantec Security Response confirms Flamer and Stuxnet share some of its source code," O Murchu wrote, adding that the analysis would continue.

If the United States is proven to be a force behind Flame, it would confirm the country that invented the Internet is involved in cyber espionage -- something for which it has criticized China, Russia and other nations.

A Pentagon report last year that outlined the still-evolving U.S. cyber strategy said economic espionage could prove the greatest threat to long-term U.S. interests, pointing to thefts of industrial and defense secrets via Internet spyware.

"There's a Balkanization of cyberspace that's occurring, and companies need to choose which side they're on," said Dmitri Alperovich, co-founder of U.S. security firm CrowdStrike.

Kaspersky Lab had said Flame was developed with a different set of tools than Stuxnet, though it said its analysis was just beginning and would take many months.

After digging deeper, Kaspersky Lab said Monday its researchers identified segments of Flame and a version of Stuxnet released in 2009 that were nearly identical -- suggesting the engineers who built the two viruses had access to the same set of source code.

That suggested tight collaboration between the teams behind the two viruses. Eugene Kaspersky said it was clear there were two or more teams with differing styles, and that Flame as a whole might have employed 100 people.

Researchers have been looking for a connection between Stuxnet and Flame because both viruses infected machines by taking advantage of a Windows flaw to launch the "autorun" feature, and infected personal computers from a small drive inserted via USB slot.

The section of code now cited as connecting the two pieces of malicious software not only concerns that flaw but does so in the same style.

The Windows flaw was unknown before Stuxnet's discovery in 2010, according to Roel Schouwenberg, one of the Kaspersky Lab researchers who helped discover the Flame virus.

Kaspersky Lab researchers did not find the Flame components in more advanced versions of Stuxnet, added Schouwenberg.

"Flame was used as some sort of a kick-starter to get the Stuxnet project going," Schouwenberg theorized. "As soon as the Stuxnet team had their code ready, they went their way."

He suspected the creators of Stuxnet removed the borrowed components from later versions so the Flame program would not be compromised if the attack on the Iranian nuclear program was discovered.

Stuxnet was discovered in 2010 and has been closely scrutinized by the world's smartest cyber sleuths. Yet Flame remained hidden until last month, when a United Nations agency asked Kaspersky Lab to look for a virus that Iran said had sabotaged its computers, deleting valuable data.

When Kaspersky's team started looking for suspicious files in the Middle East, they found Flame.

Eugene Kaspersky said at the Reuters Summit his firm recently agreed to advise on geopolitical Internet security issues more broadly for the U.N.'s International Telecommunication Union. Russia and others want the group to take a more active role in Internet governance.

Schouwenberg said he suspected Flame may be capable of deleting data and attacking industrial control systems that run plants like the uranium enrichment facility at Natanz, but he has yet to find the evidence.

Kaspersky Lab researchers are still trying to understand the function of more than 100 mysterious files built into the Flame samples that they have discovered, he said.

*Editing by Alden Bentley,*
*Jeffrey Benkoe Steve Orlofsky*

# Experts warn of shortage of U.S. cyber pros

BY JIM FINKLE AND NOEL RANDEWICH
NEW YORK, JUN 13, 2012

Leading cyber experts warned of a shortage of talented computer security experts in the United States, making it difficult to protect corporate and government networks at a time when attacks are on the rise.

Symantec Corp Chief Executive Enrique Salem told the Reuters Media and Technology Summit in New York that his company was working with the U.S. military, other government agencies and universities to help develop new programs to train security professionals.

"We don't have enough security professionals and that's a big issue. What I would tell you is it's going to be a bigger issue from a national security perspective than people realize," he said.

Jeff Moss, a prominent hacking expert who sits on the U.S. Department of Homeland Security Advisory Council, said that it was difficult to persuade talented people with technical skills to enter the field because it can be a thankless task.

"If you really look at security, it's like trying to prove a negative. If you do security well, nobody comes and says 'good job.' You only get called when things go wrong."

The warnings come at a time when the security industry is under fire for failing to detect increasingly sophisticated pieces of malicious software designed for financial fraud and espionage and failing to prevent the theft of valuable data.

Moss, who goes by the hacker name "Dark Tangent," said that he sees no end to the labor shortage.

"None of the projections look positive," said Moss, who serves as chief security officer for ICANN, a group that helps run some of the Internet's infrastructure. "The numbers I've seen look like shortages in the 20,000s to 40,000s for years to come."

Enrique Salem, CEO of Symantec Corp., speaks at the Reuters Global Media and Technology Summit in New York, June 12, 2012. **REUTERS/ BRENDAN MCDERMID**

Reuters last month reported that the National Security Agency was setting up a new cyber-ops program at select universities to expand U.S. cyber expertise needed for secret intelligence operations against computer networks of adversaries. The cyber-ops curriculum is geared to providing the basic education for jobs in intelligence, military and law enforcement.

The comments echo those of other technology industry executives who complain U.S. universities do not produce enough math and science graduates.

U.S. defense contractor Northrop Grumman Corp on Monday launched the first undergraduate honors program in cybersecurity with the University of Maryland to help train more workers for the burgeoning field.

Salem pointed to British banks as one industry already struggling to find enough network security experts.

"Because there's such a concentration of financial services companies there, there's not enough security expertise already in London. We see it. Banks can't find enough security professionals," he said.

Moss, who founded the Defcon and Black Hat hacking conferences that are held in Las Vegas each summer, said that U.S. government agencies are so desperate to fill positions that they are poaching security experts from private firms.

In some cases, security firms have retaliated by refusing to send their most talented cyber experts on government jobs for fear of losing them. Instead they send their "B Team" consultants, Moss said.

Some companies have even begun writing non-poaching clauses into their contracts with clients to guard against losing their top cybersecurity talent.

Government officials from normally secretive agencies, including the National Security Agency, FBI and U.S. military, attend Defcon each year to recruit gifted hacking geeks who they might not otherwise be able to identify.

*Additional reporting by Andrea Shalal-Esa; Editing by Steve Orlofsky, Phil Berlowitz and Ron Popeski*

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# Hacked companies fight back with controversial steps

BY JOSEPH MENN
JUN 17, 2012

Frustrated by their inability to stop sophisticated hacking attacks or use the law to punish their assailants, an increasing number of U.S. companies are taking retaliatory action.

Known in the cybersecurity industry as "active defense" or "strike-back" technology, the reprisals range from modest steps to distract and delay a hacker to more controversial measures. Security experts say they even know of some cases where companies have taken action that could violate laws in the United States or other countries, such as hiring contractors to hack the assailant's own systems.

In the past, companies that have been attacked have mostly focused on repairing the damage to their computer networks and shoring them up to prevent future breaches.

But as prevention is increasingly difficult in an era when malicious software is widely available on the Internet for anyone wanting to cause mischief, security experts say companies are growing more aggressive in going after cyber criminals.

"Not only do we put out the fire, but we also look for the arsonist," said Shawn Henry, the former head of cybercrime investigations at the FBI who in April joined new cybersecurity company CrowdStrike, which aims to provide clients with a menu of active responses.

Once a company detects a network breach, rather than expel the intruder immediately, it can waste the hacker's time and resources by appearing to grant access to tempting material that proves impossible to extract. Companies can also allow intruders to make off with bogus files or "beacons" that reveal information about the thieves' own machines, experts say.

Henry and CrowdStrike co-founder Dmitri Alperovich do not recommend that companies try to breach their opponent's computers, but they say the private sector does need to fight back more boldly against cyber espionage.

It is commonplace for law firms to have their emails read during negotiations for ventures in China, Alperovich told the Reuters Global Media and Technology Summit. That has given the other side tremendous leverage because they know the Western client company's strategy, including the most they would be willing to pay for a certain stake.

But if a company knows its lawyers will be hacked, it can plant false information and get the upper hand.

"Deception plays an enormous role," Alperovich said.

Other security experts say a more aggressive posture is unlikely to have a significant impact in the near term in the overall fight against cybercriminals and Internet espionage. Veteran government and private officials warn that much of the activity is too risky to make sense, citing the chances for escalation and collateral damage.

"There is no business case for it and no possible positive outcome," said John Pescatore, a National Security Agency and Secret Service veteran who leads research firm Gartner's Internet security practice.

Nevertheless, the movement shows the deep anger and sense of futility among security professionals, many of whom feel that a bad situation is getting worse, endangering not only their companies but the national economy.

"There's nothing you can do" to keep determined and well-financed hackers out, said Rodney Joffe, senior technologist at Internet infrastructure company Neustar Inc and an advisor to the White House on cybersecurity.

Joffe recently looked at 168 of the largest 500 U.S. companies by revenue and found evidence in Neustar forensic logs that 162 of them owned machines that at some point had been transmitting data out to hackers.

Frustration by security professionals is not new. Some privately admitted to rooting for Lulz Security last year during that hacking group's unprecedented spree of public crimes, when it broke into and embarrassed Sony Corp (6758.T), an FBI affiliate and others with routine hacking techniques [ID:nL2E8E6EDO]. They said the resulting media coverage finally caught the attention of CEOs and legislators, although tougher cybersecurity laws have yet to pass Congress.

Although some strike-backs have occurred quietly in the past, Facebook popularized going on offense, said Jeff Moss, founder of the influential Black Hat security conferences and an advisor to the Department of Homeland Security.

In January, Facebook Inc (FB.O) named some of the Russian players behind the malicious "Koobface" software that spread through spam on various social networks, earning the gang an estimated $2 million.

The security industry's shortcomings were underscored most recently by the discovery of the Flame spying virus in the Middle East.

Mikko Hypponen, the well-regarded chief research officer at Finland's F-Secure Oyj, told the Reuters Summit his company had a sample of Flame in 2010 and classified it as clean and later missed another virus called Duqu that was suspected of being backed by Western governments.

"These are examples how we are failing" as an industry, Hypponen said. "Consumer-grade antivirus you buy from the store does not work too well trying to detect stuff created by the nation-states with nation-state budgets."

Because some national governments are suspected in attacks on private Western companies, it is natural that some of the victims want to join their own governments to

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**http://link.reuters.com/guc88s**

# DirecTV could also deploy ad skip technology

BY LIANA B. BAKER AND YINKA ADEGOKE
NEW YORK, JUNE 11, 2012

DirecTV Group, the largest U.S. satellite TV operator, could deploy technology that would enable its millions of subscribers to automatically skip television advertising, its top executive.

Mike White, chief executive of DirecTV, said his company bought rights to the technology from a company called Replay TV nearly five years ago but has not seen any need to make it available to customers.

"We haven't chosen to use it. It's not clear to me there's a raging demand from consumers for it," said White, speaking at the Reuters Global Media and Technology Summit.

Similar ad skipping technology has become the focal point of several lawsuits and a countersuit filed last month pitting DirecTV rival Dish Network Corp against CBS Corp, News Corp's Fox, Comcast Corp's NBC Universal and other major media companies.

White said his company will keep an eye on the outcome of the legal action between the companies as well as consumer adoption of the technology.

Dish Chairman Charlie Ergen, who controls the company, is using the threat of the ad skipping technology to gain negotiating leverage in discussions over carriage fees with broadcasters, analysts.

Distributors like DirecTV and Dish regularly complain about the above-inflation cost increases they are charged by their programming partners.

One way for the two satellite distributors to counter rising costs would be to merge to give them more leverage to negotiate lower prices from programmers.

Industry observers have long speculated that DirecTV and Dish would eventually combine even though a proposed merger ran into regulatory hurdles more than a decade ago. White said a merger now would make sense given the increased competition in the marketplace since the last merger attempt.

"There's a strategic logic and synergies from a combination. It was tried 10 years ago and vetoed by a Republican administration. It would struggle to get regulatory approval today," said White, who worked for Republican Presidential candidate Mitt Romney at Bain & Co in the early 1980s.

DirecTV sees consumer-facing technology as an important differentiator in competition with Dish and rival cable operators. It is also working on launching voice-activated remote controls through the Apple's Phone and Google's Android platforms, White said.

The technology, currently going through its research and development process, would allow DirecTV customers to switch channels and search for shows by speaking into an app on their phone.

Another way DirecTV attempts to differentiate itself is through premium sports programming, in particular its exclusive National Football League Sunday Ticket package of games.

DirecTV for the first time is offering two tiers of the NFL Sunday ticket package, which allows viewers to watch football games outside their local markets on game day. The cheaper package, priced at $199, will not offer mobile services or the Redzone highlights channel offered to customers paying for a $299 premium package.

The two versions of the package are intended to entice a larger portion of subscribers to renew the free one-year Sunday Ticket subscriptions DirecTV offered as a promotion to new customers last year.

The marketing around Sunday Ticket will ramp up in July around the start of NFL training camps. But White said the company expects to "do way better than we would have done with the old strategy," which saw fewer than 50,000 NFL Sunday ticket customers convert to paying customers.

"Anything better than 50,000 out of 1,000,000 beats what we've done before," White said.

*Editing by Peter Lauria and Steve Orlofsky*

Michael White, CEO of DirecTV, speaks during the Reuters Media and Technology Summit in New York, June 11, 2012. **REUTERS/KEITH BEDFORD**

# Intel CFO eyes more connected living rooms

BY NOEL RANDEWICH
NEW YORK | WED JUN 13, 2012 1:50PM EDT

Intel CFO Stacy Smith speaks with Reuters reporters San Francisco, California August 8, 2011.
**REUTERS/ROBERT GALBRAITH**

New markets including home entertainment will be major sources of growth for Intel Corp as more gadgets become connected to the Internet and drive demand for powerful data centers, the top chipmaker's chief financial officer said.

While Intel is eager to sell processors for smartphones, set-top boxes and other connected devices, in many cases the much more expensive chips for servers that are needed to stream movies and other content are a bigger business opportunity, CFO Stacy Smith told the Reuters Media and Technology Summit in New York.

"It's probably true in the digital TV space because if you think about it, the content that is going to be served to these devices is extraordinary," he said.

"It's increasingly high-def digital content, so it's got to be driving a pretty significant buildout of the storage infrastructure and server infrastructure that supports all those devices."

The opportunity is not limited to home entertainment. Digital signs, tablets and cars are among other areas increasingly connected to the Internet, fueling demand for more Intel chips, he said.

Smith's comments come as Intel puts together a TV service that includes a set-top box employing technology that can distinguish who is watching, potentially allowing Intel to target advertising, according to sources.

Smith would not discuss Intel's specific plans for the TV service.

Asked about entertainment industry veterans who have been advising Intel, Smith said, "We hire smart people from a variety of industries that give us insight into industries and they give us capabilities we haven't historically had."

Intel already makes processors for set-top boxes. Comcast, for instance, recently announced the gradual rollout of an Intel-based set-top box that customers can control with their smartphones. Called "X1," the platform will rely on data centers packed with high-end servers -- which typically also use Intel chips.

Intel's processors power 80 percent of the world's PCs but growth in that market has been slowing as more consumers turn to tablets.

A sovereign debt crisis has shaken investor and consumer confidence in Europe, forcing Cisco and other major technology companies to scale back expectations for IT spending there.

Last month, Intel Chief Executive Paul Otellini played down those concerns and said the quarter was playing out as expected.

Smith emphasized China and other markets where PC sales are growing faster than in developed markets, saying a weak Europe is a "baseline" presumption for Intel.

*Reporting By Noel Randewich, Additional reporting by Jennifer Saba, Peter Lauria and Sinead Carew; Editing by Phil Berlowitz*

# Low-rated cable channels may live on YouTube

BY ALEXEI ORESKOVIC AND YINKA ADEGOKE
NEW YORK, JUN 14, 2012

YouTube's boss said that cable television channels with small audiences will in the future migrate to the Web and become available on a standalone basis, potentially making a home for themselves on the No.1 video website.

The cable channels could provide more professionally produced content for YouTube as it weighs selling subscriptions for consumers to access some of its video offerings.

As YouTube, owned by Google Inc, ponders selling subscriptions, it has "seen demand from the kind of networks that have smaller audiences on cable," and which get very little or no affiliate fees from cable distributors, Kamangar said at the Reuters Media and Technology Summit.

"I see those kinds of networks becoming available in the future on the Web and I see those becoming available in an a la carte basis," he said.

Cable channels are traditionally sold in fixed bundles of up to 100 channels -- an arrangement which has triggered grumbles from consumer advocates as the price of even the cheapest package outpaces inflation.

New entrants like Google, Intel Corp and Microsoft Corp among others have tried to convince major content owners to allow them to sell smaller bundles of TV networks to consumers over the Internet. But the network owners have refused to break the cable bundles for fear of undermining their lucrative $100 billion relationship with their traditional distributors.

Kamangar told Reuters that Google had thought long and hard about bringing traditional programming to YouTube but had found it too expensive.

Small to midsize networks with fewer viewers sometimes struggle in the cable space as they have less leverage to raise their prices with the operators.

Kamangar's comments come as Department of Justice has launched an inquiry into whether cable TV distributors are hampering development of the fledgling online video sector.

One of the key issues Justice is looking at is how the cable industry insists on only selling bundles of networks to cable and satellite partners.

Large media companies, meanwhile, are increasingly looking at ways to offer their own specialized programs on YouTube, seeking potential acquisitions in some of the specialized video "channels" currently available on YouTube.

"The top network executives are really taking notice. They're asking questions about who is doing well, about who is building a professional management team. And I think eyes are very much on this space now," said Kamangar.

Discovery Communications' acquisition of Web video provider Revision3 last month is the first of more such deals that Kamangar predicted will happen in the coming year.

"They're circling," he said, of media companies' interest in online-video programmers.

YouTube, the world's No.1 video website, which streams more than 4 billion videos every day, is moving to add professional-grade video programs to the vast archive of amateur, home-shot videos that made the site popular.

In October YouTube announced that it had struck 100 original video programming deals with media partners including pop star Madonna and hip-hop mogul Jay-Z. Thomson Reuters is among YouTube's partners.

Roughly half the channels have launched so far, said Kamangar, and the top ten channels are each getting about one million views a week.

Kamangar said the channels are also drawing interest from large brand advertisers such as Toyota and Unilever that have spent money to advertise on the channels.

YouTube is also considering making some of the original video programs featured on recently launched YouTube "channels" available for a fee, which would be shared by the content provider and YouTube.

Salar Kamangar, CEO of YouTube and Senior Vice President of Video at Google, speaks at the Reuters Global Media and Technology Summit in New York June 14, 2012. **REUTERS/BRENDAN MCDERMID**

"There's a lot of demand from some of our top video game networks," Kamangar said. "They have such a big audiences that they can start to segment their audiences into those that are willing to pay a higher amount" for things like new gaming tricks.

He also cited sports such as the Ultimate Fighting Championship as being ideally suited for online subscriptions.

YouTube currently makes money by selling advertising including pre-roll video ads and sponsorships of certain parts of the site, though Google does not break out financial results for YouTube.

*Reporting Alexei Oreskovic and Yinka Adegoke; Editing by Peter Lauria, Carol Bishopric and Phil Berlowitz*

# FT sees BlackBerry with smaller role in future

BY JENNIFER SABA AND YINKA ADEGOKE
NEW YORK, JUN 14, 2012

Financial Times, which gets nearly a third of its revenue from digital subscriptions, expects BlackBerry smartphones to become less important for corporate executives as BlackBerry loses market share to devices like Apple Inc's iPhone and Google Inc's Android-based system.

FT.com Managing Director Rob Grimshaw said BlackBerry, made by Research In Motion, is now fourth in terms of priority for developing the FT's applications, even behind Microsoft Corp's Windows 8.

"It's something we keep pushing back," Grimshaw said at the Reuters Global Media and Technology Summit in New York.

"We'll be doing something, but it's becoming less and less important in our world. They still have a presence in the corporate marketplace but they have lost their dominance."

The Financial Times, owned by Pearson PLC, has been a leader among newspaper publishers in devising strategies to make money from digital media. It has been charging for access to its website for more than a decade and has applications for the iPhone and Android-based devices.

Last summer FT.com declined to place its app in the Apple iTunes Store and instead developed a Web-based app, in order to sidestep Apple's control of user data and revenue-share terms.

Many content providers are wary of not being in the Apple store since so many consumers own iPads and iPhones.

Grimshaw said FT's absence from the Apple store has not hurt its ability to attract digital readers.

"We've been publishing since 1883. We don't need Apple to tell people we're here," said Grimshaw.

The FT has 285,000 digital subscribers, nearly half of its total readership. Grimshaw expects the FT will derive 50 percent of its revenue from digital in the next three to four years.

The FT is closely watched by other newspapers that are considering charging for online content. The industry is facing unprecedented challenges as advertisers choose to spend elsewhere and readers ditch paid print product in favor of free online news.

> "We've been publishing since 1883. We don't need Apple to tell people we're here.
>
> **Rob Grimshaw**

Newspapers' advertising revenue has dropped more than 50 percent in five years, wiping out more than $20 billion in revenue, Grimshaw noted, citing figures from the Newspaper Association of America.

"What that will result in is a lot of newspapers going under," he said.

Newspapers' mass distribution had always given it a competitive edge. But the Internet turns that on its head, Grimshaw explained.

"In some ways it didn't matter what you put in the product. People would still buy it. You move online, distribution is not an advantage," he said.

"The result you see is a massive oversupply of news."

While the FT is in a somewhat unique position with its global reach and business related news, other newspapers can find ways to charge for content tailored to the communities they serve.

Gannett Co Inc, the largest newspaper chain in the United States that publishes 82 dailies including the Arizona Republic and the Des Moines Register, is starting to gain some traction from its online pay model strategy it began testing in some markets in 2010.

Gracia Martore, Gannett CEO, said on Tuesday during the summit that they are seeing customers who are new subscribers at the newspaper sites that rolled out a digital pay strategy.

"We are pleased with consumer reaction," Martore said. "We are exceeding our expectations."

Gannett plans to have a digital pay model in place where readers can pay one price to access digital and print content at all of its newspapers, except for USA Today, by the end of the year.

The company expects to generate $100 million of additional operating income in 2013 because of the new strategy.

"There's always an opportunity for the print paper and print advertising but we also understand that consumption is happening in a digital format," she said.

*Reporting by Jennifer Saba and Yinka Adegoke; Editing by Phil Berlowitz, Richard Chang and Peter Lauria*

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# Europe's telcos need to learn debt prudence

BY LEILA ABBOUD
JUN 13, 2012

Europe's telecom operators must be more careful about managing their debts even though that will curb their ability to spend on acquisitions and reward shareholders as the sector hots up, a senior France Telecom (FTE.PA) executive said.

The industry has entered a period of turbulence touched off by the arrival of Mexican telecom giant Carlos Slim to Europe, who is seeking to buying up low-priced telco assets, as well as looming investment needs in network upgrades.

Telecoms companies hold some of the highest levels of debt among blue-chips and key debt-to-earnings ratios are being stretched as profits drop because of tough competition and recession in some markets.

France Telecom has been working to keep its debt-to-EBITDA ratio at 2 but as profits have shrunk because of a new mobile challenger in its home market, it has come under pressure to keep a lid on debt and lengthen its maturity.

Many rivals have higher debt ratios, with Spain's Telefonica (TEF.MC) under particular stress, selling assets to protect its rating and possibly play a role in a new wave of consolidation.

Speaking at the Reuters Global Media and Technology Summit, France Telecom Chief Financial Officer Gervais Pellissier said he learned to be prudent on debt when the group nearly defaulted in 2002 after a debt-fueled acquisition binge during the Internet bubble.

At the outset of the credit crisis in 2008, France Telecom set the group's debt-to-EBITDA ratio at two, lower than peers.

"I remember our big shareholders at that time were not happy at all because they thought we were being too careful," he said. "Now when I discuss that ratio with Moody's or Fitch, they no longer view that as conservative."

Credit rating agencies Fitch and S&P have put France Telecom on negative watch because of tough competition at home, although it still holds a higher rating than most of its peers at A-.

France Telecom shares have lost 19.5 percent this year and it has predicted its EBITDA will fall by 1 billion euros ($1.25 billion) in 2012, largely because of weakness in its home market.

## DEBT MATURITIES

France Telecom's debt ratio stood at 2.1 at the end of 2011, while Telefonica's ratio was 2.6 after being hit hard by record unemployment in Spain and the banking industry crisis. Vodafone's ratio was 1.7 and KPN's 2.5.

Telefonica, which has 57 billion euros in debt, needs to raise between 7 billion and 8 billion euros a year through 2015 to cope with debt maturities. Standard & Poor's downgraded the company to "BBB" on May 24, citing intense pressure in Spain, while Moody's placed Telefonica on review for downgrade.

To protect its investment-grade rating, Telefonica has said it will accelerate asset sales, consider listing its German and Latin American units and pay out less of its dividend in cash.

For Stuart Reid, credit analyst at Fitch, Telefonica's moves and Pellissier's caution are a sign of the times.

"Even large, well-diversified telecom operators are increasingly concerned about protecting their credit ratings given pressures in the economy and financial markets, concerns that were less present in the past," said Reid.

For his part, Pellissier said his finance team was now managing the group's debt on a weekly basis.

"We do fear a downgrade, but even if it came it would just put us at the level of our peers," he said, adding that operating pressure on the business in France was to blame. "Even if you manage the debt well ... you need to generate cash."

The debt issue also risks weakening the ability of European telecom operators to participate in the consolidation of the sector that some analysts think is the only way to create more profitable companies.

With shares of the sector beaten down, Mexico's Slim has chosen this moment to seek a beachhead on the Old Continent.

The owner of America Movil has scooped up a stake in Telekom Austria AG and mounted a raid on Dutch KPN, ramping up the pressure for consolidation in major markets like Germany.

"With our debt loads, European operators just don't have the firepower of our U.S. or Asian peers," Pellissier said.

He added that if the debt-to-EBITDA ratio of 2.3 were applied to the sector as an average, European telecom operators would only have 8 billion euros of borrowing capacity to pay for acquisitions, compared with 250 billion for Asian peers.

"Mr. Slim has money, China Mobile has money, Singtel has money ... My feeling is that (India's) Bharti would be keen one day to buy a European operator."

Asked if he was worried about Slim's arrival, Pellissier said he saw it as proof of healthy prospects in the European market, despite the unpopularity of the sector's shares.

"Mobile data is growing and we have high monthly revenue per user in Europe," he said. "Mr. Slim knows what he is doing, so if he is willing to put 3 billion on the table for part of KPN, then I see that as a good thing."

($1 = 0.8028 euros)

*Editing by David Holmes*

# European Telcos count on 4G for pricing power

BY LEILA ABBOUD AND HARRO TEN WOLDE
PARIS, JUN 15, 2012

European telecom operators are planning to charge customers more for faster new fourth-generation mobile services in the hope of recouping massive network investments and clawing back lost pricing power.

It's a risky approach since it could put off recession-weary customers and slow the adoption of a technology that benefits telcos by lowering operating costs and helping reduce network overload.

The strategy also differs from what U.S. operators Verizon and AT&T have done in their 4G rollout. They incorporated the new technology into all of their offers without extra charges, something they could afford to do because they already charge higher prices.

European operators are expected to spend $15.25 billion through 2015 on upgrading their networks to get to faster 4G speeds, according to Rethink Technology Research. But upgrades are lagging in much of Europe compared to the U.S. and Japan.

Where operators have launched -- such as in the Nordic countries, Austria, and Germany -- few customers have rushed to the service because 4G smartphones have not been available. Nearly all of the current few hundred thousand users of the new technology in Europe are using laptop dongles or home routers.

With smartphones now finally trickling to market, some of the early movers, including Vodafone in Germany and Teliasonera in Sweden are seeking to sell 4G service plans as a separate, more expensive option for tech-savvy users.

Others, such as Deutsche Telekom in its home market, are taking a different tack, more akin to the U.S. approach. All customers will be on the 4G network where it is available, and the company hopes to lure customers by playing the network quality card.

Deutsche Telekom wants to have fast services available in about 100 cities in Germany by the end of 2012 and has now far more than a quarter of that target covered.

France Telecom will likely seek to charge more once it launches 4G in a handful of cities including Marseille early next year. It is now testing various tariff structures and doing consumer studies before settling on a final pricing strategy, said Chief Financial Officer Gervais Pellissier said.

"If we are able to multiply speeds by five or ten, people will use more services on line, browse more, do e-commerce," he said at the Reuters Global Media and Technology Summit.

"We think we can monetize that: why should it cost the same as not having access to those services?"

Getting the business model right will be key for European operators, which are already suffering from a toxic cocktail of price competition and regulatory pressure that has eroded profits and sent sector valuations near ten-year lows.

Investors will be expecting a return on the billions global operators are spending on 4G.

Unlike their U.S. peers Verizon and AT&T, Europe's telcos have not yet been able to take full advantage of the mobile revolution of recent years that has made smartphones and tablets must-have devices. They don't have the same pricing power in markets like the UK, France or Spain as the U.S. operators do and as result their profit margins are lower, analysts say.

Yet seeking to use the arrival of 4G, also known as long-term evolution technology, to claw back profitability may not pay off in the end.

"People are not willing to pay a significant premium for speed alone, particularly when in the initial period there is limited coverage," said Thomas Wehmeier, analyst at Informa Telecoms & Media.

"Customers will feel pretty aggrieved if they are paying 60 euros a month but a big proportion of the traffic is going over the old network."

Wehmeier argues that the better approach is the one taken by Verizon which aggressively rolled out 4G technology to its network starting in 2010 and gave all customers access as part of existing monthly plans. Then it focused its marketing on Verizon's faster speeds than rivals, emblazoning ads with the slogan "America's largest 4G LTE network: experience the speed and power in more places."

By the end of April, Verizon's LTE network had coverage for 200 million people, or about two thirds of the U.S. population. AT&T now has coverage in about 39 cities and promises coverage for almost 150 million of the population by the end of 2012.

When operators roll out 4G, they do it gradually over several years by adding new equipment and software to existing mobile towers. Users can eventually get speeds of up to 100 megabits of data per second, more than double even the fastest 3G networks.

But even after operators launch 4G services commercially, the actual speed that users experience when surfing the web can vary widely depending on if their city has been covered and the number of people accessing the same mobile tower at the same time.

Teliasonera, which launched the world's first 4G network in late 2009 and now counts 140,000 subscribers, just began marketing its first LTE-enabled smartphone this quarter, the Samsung Galaxy II.

It offers four monthly service plans from roughly 11 to 45 euros ($14-$57)per month, but users get the highest speeds and mobile data allotment only if they sign up for the most expensive one.

For example, the 11 euro plan offers 10 megabits per second download speed for 2

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# Tech, media execs brace for economic uncertainty

BY NICOLA LESKE
NEW YORK, JUNE 15, 2012

A deepening euro zone crisis, tepid U.S. job creation and slowing growth in China have prompted some media and technology companies to sound a stronger note of caution for the rest of the year, executives in those industries said at the Reuters Global Media and Technology Summit this week.

Companies fear the sovereign debt crisis and slowing economies of European nations will drag down the U.S. economy, the executives said. Tensions are running particularly high ahead of Sunday's pivotal election in Greece -- whose outcome could cause the euro zone economy to deteriorate.

"Clearly we are concerned about the trajectory of where we are heading," said Tom Georgens, chief executive officer of data storage company NetApp Inc, referring to worries about the debt situation in the south of Europe starting to spread to Germany, Britain and France.

Xerox Corp CEO Ursula Burns said her company had been feeling the effects of the soft European economy since the end of 2011 and that its financial planning for this year factored in the possibility of that continuing.

"I am not expecting it to be a horror story, but I am not expecting it to be great either," said Burns. Xerox also manages unemployment benefits for some U.S. states and therefore actually sees upside from an economic downturn domestically.

Forrester analyst Andrew Bartels said last week that "the risk of a tech downturn that follows a deeper recession in Europe and slower growth in the U.S. and Asia Pacific have now risen to around 30 percent."

In the United States, the unemployment rate edged up 0.1 percentage point to 8.2 percent in May.

JPMorgan analysts last week cut their information technology spending growth outlook for 2012 to 2.2 percent from 3.8 percent due to macroeconomic conditions. "This change is a disappointment after we had raised the growth outlook on March 13," they said.

For tech investors wondering where to put their money, security and software companies are likely to be better bets than IT hardware companies, both Forrester and JP Morgan said.

Although its sales growth has been slowing, software often allows upgrades without expensive hardware purchases and automation, which helps cut down on costs and improve efficiency.

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Some categories such as cloud computing, software as a service or corporate security will probably outperform, JPMorgan said, adding that Oracle Corp, CA Inc and Symantec Corp were best positioned.

Forrester's Bartels called software the one bright spot and said companies such as Oracle, SAP AG and Salesforce.com Inc were "looking fairly good."

The London Olympics and the U.S. presidential election will boost advertising in the second of half of 2012 despite the downturn, the CEOs of advertising agencies WPP and Publicis agreed.

Publicis' Maurice Levy said the automobile and pharmaceutical companies were "suffering," and banks were slow to spend. But he added that advertising of consumer goods and technology was holding up well, and battles between the likes of Google Inc, Apple Inc and Samsung are likely to drive up spending from the telecom sector.

The London Olympics this summer have prompted major advertisers like Coca-Cola Co, Procter & Gamble Co and McDonalds Corp to spend heavily to promote their brands to the large worldwide audience the games are expected to attract.

However, Levy and WPP CEO Martin Sorrell presented differing views of 2013.

Sorrell was the more downbeat of the pair, saying 2013 could prove difficult because of an increasingly large U.S. deficit and a lack of major events such as the Olympics.

But Levy was cautiously optimistic. Based on clients' planning, "I see 2013, for the time being, quite positively," he said.

For print media, perhaps the only bright spot is the uncertainty that comes with economic troubles, which tends to drive up circulation, particularly for business-oriented publications like the Financial Times.

"The worse the news gets, the more subscriptions we sell," FT.com Managing Director Rob Grimshaw said, adding he would still prefer to be "trading in conditions that were more benign."

*Additional Reporting By Leila Abboud, Gwenaelle Barzic and Kate Holton in Paris; Paul Sandle in London; and Sinead Carew, Jim Finkle and Jennifer Saba in New York; Editing by Peter Lauria and Lisa Von Ahn*

# Smartphones,Facebook help online music come of age

BY PAUL SANDLE
PARIS, JUNE 15, 2012

Digital music services battling to build a serious business out of selling tracks online need to embrace social media, smartphones and emerging markets, two of the most successful companies told the Reuters Media and Technology Summit.

Despite numerous attempts and the continued popularity of music, few start-ups have managed to succeed in launching new services as they struggled to secure the support of the record labels and compete with the might of Apple's Tunes.

But more than 10 years in, groups such as the music discovery specialist Shazam and music services Rhapsody, Spotify and Pandora have become well established by delivering tunes to more consumers around the world and helping to grow revenues for the once-wary labels.

Telecom operators which can hide the cost of the music in their monthly contract fee and social networks which can raise awareness to millions of people are key. Tapping emerging markets can also prove fruitful.

"I think for younger music consumers it's not about ownership any more: it's about access to 16, 20 million tracks," said Will Mills, Shazam's director of music and content. "Then it's about social curation to try to work out what you want to listen to.

"If you make it frictionless and priced right people will buy music still."

The music industry has been criticised in the past for focusing too much on fighting piracy and failing to develop new online services that can attract consumers.

While Apple's Tunes dominates the market, consumers often buy single tracks rather than albums.

In response, the industry is now expanding its horizons with more players and a push into subscription services where fans pay a monthly fee to access millions of songs. Including that fee in a mobile phone bill can help drive sales while also increasing customer loyalty for the operator.

French music streaming company Deezer is growing globally using a partnership with Facebook and deals with telecom operators to encourage people to discover music through their networks of friends and listen to it via phones and computers.

Chief Executive Axel Dauchez said one important issue was the need to teach people that they could access the music offline on their phones without running up huge data bills. "If you reach that point there is no more need for ownership," he said.

Deezer offers a limited free service in France, its biggest market, but outside the country its streaming services, which are targeted at smartphone users, generally carry a monthly fee.

Dauchez said the labels' attitude changed after they realised streaming services were a new source of revenue. "It is now much easier (dealing with labels)," he said.

Streaming also has huge potential. He said an average of two CDs were bought per household in 2000 In France, whereas a subscriber to its streaming service generated 10 euros a month.

Independent music industry analyst Mark Mulligan said major labels welcomed streaming services, but their enthusiasm was not shared by independent labels and some artists, who were not seeing much return.

"Something in the region of 130-140 streams is equivalent to one download (in returns)," he said. "It looks better if you're a record label because you aggregate everything, but if you're an artist and you're swopping one download for 20 plays you are looking at a massive drop in your income."

But he said the opposing argument said the number of people downloading music was quite small so streaming could be one way of getting everyone else involved with digital music.

"The theory is things will essentially right themselves over a period of years as more people move into the consumption paradigm, because ultimately it's a scale game," he said.

The industry has also woken up to the potential of services like Shazam, a smartphone app that recognises and identifies tracks.

It has attracted more than 200 million users, who tag more than 7 million songs each day. Users can then click through to Shazam's partner sites to buy the song.

"Eight percent go on to buy a track, that's primarily an a-la-carte download from the big players in the space," Mills said. "It drives more than $100 million of music sales a year.

"We have deals with a lot of record labels around the world," he said. "A very big track, such as Goyte's 'Somebody That I Used to Know' will get more than 1.5 million tags a week, which nets out to sales of 120,000."

Shazam is bolstering its strong position in music by agreeing deals with broadcasters and advertisers to enable consumers to tag adverts or programmes during major events such as the Super Bowl, enabling programme makers to directly interact with consumers.

Other opportunities include selling tickets to live music. "It's not just about selling units anymore, it's about maximising the value around the whole music experience," he said.

Mills said the labels were now much more open to working with a range of new business models.

"Five years ago they were very much about wanting to get very large advances, but now they want to innovate, (they) throw as much against the wall as they can and see what sticks," he said.

Deezer has a tie-up with France Telecom, helping it reach 1.4 million paid subscribers in

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# WPP's Sorrell seeks peace after pay revolt

BY KATE HOLTON AND PAUL SANDLE
PARIS, JUNE 14, 2012

Martin Sorrell, Chief Executive Officer of WPP, attends a Reuters Global Media and Technology Summit in Paris June 14, 2012. **REUTERS/MAL LANGSDON**

WPP boss Martin Sorrell struck a more conciliatory tone on Thursday, after shareholders voted against a multi-million pound pay award he had vigorously defended, saying he understood income inequality sparked strong feelings in a recession.

Sorrell became the latest executive to clash with investors over pay on Wednesday when 60 percent of shareholders rejected his 2011 pay package of 6.8 million pounds ($10.6 million) in a non-binding vote at an annual general meeting in Dublin.

Far from shirking a fight, Sorrell had used the issue in the run up to the meeting to defend high pay as a reward for performance and argue that appropriate remuneration was needed if companies wanted to attract and keep the right talent.

Speaking at the Reuters Global Media and Technology Summit a day after the snub, Sorrell sounded more conciliatory and signaled WPP would try to find a compromise in future.

"Obviously we were disappointed with the vote. We understand the implications and the shareholders have spoken. The chairman and others will be talking to shareholders about their concerns," he said.

Asked if he was offended by the very public rebuttal at a company he founded in 1985, Sorrell said no.

"People are concerned because there is a recession, they're concerned about inequality, inequality of wealth and incomes. At times of recession people become more concerned about that, you see that politically.

"And it is a reflection of that," he said in reference to the wider backlash against shareholder pay in Britain that has been dubbed a "shareholder spring".

Sorrell is one of Britain's most high-profile businessman, having built his company to become the world's leading advertising group with 160,000 employees across 108 countries, and shareholder anger was clearly about pay, and not the man.

Of the votes cast, 98 percent supported his re-election as chief executive - a ringing endorsement of his leadership.

WPP has benefited in recent years from its early expansion into emerging markets and digital marketing, seeing it through the downturn, and it expects the second half of 2012 to be boosted by the London Olympics and U.S. election.

Like many, Sorrell is cautious about 2013 as Europe and the United States continue to grapple with a debt crisis.

However, that stance goes against the position of WPP rival Publicis and its chief executive Maurice Levy, who told Reuters on Tuesday of his optimism for the year ahead and how he expects a stronger 2013 than 2012.

"I don't quite follow that because we don't know. We have no data (for 2013)," Sorrell said when asked about the positive stance shown by Publicis on 2013.

"The U.S. deficit continues to enlarge and they have to deal with that. There are no events, there are no UEFA Championships or London Olympics and traditionally the first year of the quadrennial is the more difficult year and that's all we're saying."

The threat of a country such as Greece exiting the euro zone is also looming large with a key election there this weekend.

"From a personal point of view I hope the Greeks don't exit, from a purely practical point of view I hope they don't exit," Sorrell said.

"I think the uncertainties that would be created by a Greek exit would be so great and the anomalies and uncertainties would be so great you would hope it didn't happen."

($1 = 0.6418 British pounds)

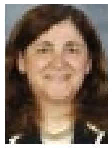
*Reporting by Kate Holton; Editing by Mark Potter*

# Summit Speakers


**Stacy Smith**
CEO
Intel


**Shawn Henry**
President
Crowdstrike


**Alon Ironi**
CEO
Siano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President, CEO
Gannett Co


**Laurence Tetrel**
COO
Total Immersion


**Tom Georgens**
Title
Company


**Axel Dauchez**
CEO
Deezer


**Jeff Moss**
Chief Security Officer, member
of DHS Advisory Committee
ICANN


**Maarten Lens-Fitzgerald**
co-founder
Layar


**Ursula Burns**
CEO
Xerox


**Carolyn Reidy**
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Simon & Schuster


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CEO
Lookout


**Martin Sorrell**
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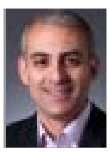
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General Manager Digital
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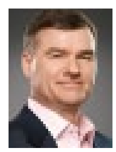
CEO
Publicis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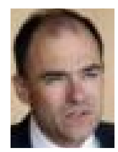
DIRECTV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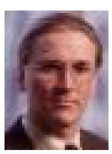
Co-Founder, CTO
Crowdstrike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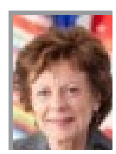
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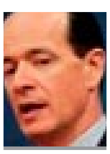
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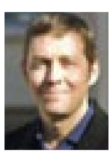
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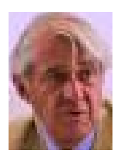
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European Data
Protection Supervisor
Company


**Will Mills**
Director Music
& Content
Shazam


**Eugene Kaspersky**
CEO and Co-founder
Kaspersky Lab


**Rob Grimshaw**
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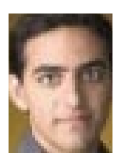
Financial Times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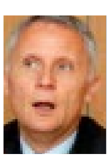
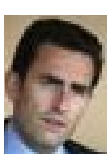

**Gervais Pellissier**
CFO
France Telecom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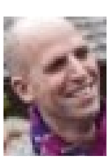
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