

## IN THE NEWS

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### Security

The critical infrastructure is vulnerable and under increased attack. For example, one researcher spent \$20,000 and took two months to confirm that the computer controls for water, power, and infrastructure are vulnerable to the same types of attack that slowed Iran's uranium reprocessing [1]. What's more, different researchers used fewer than 30 lines of code in a demonstration that destroyed a generator [2].

During 2007 and 2008, it appears that China interfered with U.S. satellites including uploading commands [3]. The hack involved the NASA Terra AM-1 satellite and the Landsat-7 earth-observation satellite [4]. As is the typical case, China denied interfering with the NASA satellites [5]. However China has a history of cyber-warfare; by one estimate 90% of the servers involved with espionage against the U.S. are located in China [6]. Furthermore, the Chinese 'Nitro' hackers used an off-the-shelf Trojan horse to sniff out secrets from chemical and defense companies [7]. Then Chinese hackers breached Canada's potash producers and may have resulted in the breach of classified data [8]. Furthermore, another report cites China and Russia cyber-attacks for stealing large amounts of American research and development data [9].

Likely to enable future hacks; an exploit to the cypher-block-chaining encryption algorithm used for XML was demonstrated by German researchers [10]. In Nigeria, the anti-fraud agency website was breached by hackers [11]. The threat from hacker attacks is such that Secretary of Homeland Security Janet Napolitano, warned Congress to act before parts of the critical infrastructure are crippled [12]. To appreciate the Secretary's warning, consider the impact seen in the U.K. where businesses are failing due to foreign hacker attacks [13]. Then there was a hacker breach of the Japanese Geospatial Information Authority [14].

One of the big challenges with today's software is identifying bugs before malicious exploits emerge. Case in point, there is a new virus called Duqu that exploits a previously unknown bug in the Windows operating system [15]. What's more, consumers at risk from the Duqu zero-day attack must wait for a vendors fix [16]. After being identified, the primary server used for collecting Duqu information was shutdown in India; however, the backup kicked in operating from Belgium [17]. So what are users supposed to do, turn off their computers? A real risk is when a zero-day

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### Economy

The number of first time unemployment claims for the week ending October 22 was 402,000 [1]. For the week ending October 29, the reported number was 397,000 with the previous week increased to 406,000 [2]. What's more, according to the Labor department, 80,000 jobs were created for October [3].

On October 28, regulators shuttered only one bank: 85) All American Bank in Illinois [4]. Then on November 4 two were closed: 86) Mid City Bank in Nebraska; and 87) SunFirst Bank in Utah [5].

One measure of the economic impact is the number of people receiving food stamps. In August the number of people getting food

stamps was 45.8 million, or approximately 15% of the population [6].

1. Chandra, Shobhana, Bloomberg, *Jobless Claims in U.S. Decreased to 402,000*, October 27, 2011.
2. Los Angeles Times, *Weekly jobless claims drop below 400,000*,

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#### Special points of interest:

- In 2007 & 2008 China uploaded commands to US satellites
- XML encryption cracked
- Duqu zero-day exploits Windows software
- 87<sup>th</sup> bank shuttered

## Economy

(Continued from page 1)

- November 3, 2011.
3. Chandra, Shobhana, Bloomberg, *U.S. Economy: Job Gains Signal 'Frustratingly Slow' Growth*, November 4, 2011.
4. AP, *All American Bank in Des Plaines fails; 2011 total at 85*, October 28, 2011.
5. AP, *Banks closed in Neb, Utah; 87 failures in 2011*, November 4, 2011.
6. Wall Street Journal, *Some 15% of U.S. Uses Food*

Stamps, November 1, 2011.

## Security

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attack is used to install back doors that allow privileged access long after the fix is eventually applied. At some point, we may be forced to follow the computer security approach used by China, the hardened open source operating system called Kylin (tied to a hardened CPU) [18].

1. AP, *U.S. fears science fiction-style sabotage in new wave of cyber attacks*, October 23, 2011.
2. Fulghum, David, *Aviation Week & Space Technology, Next-Gen Threats*, October 24, 2011.
3. AFP, *China suspect in US satellite interference: report*, October 27, 2011.
4. Eversley, Melanie, *USA Today, NASA confirms satellite was hacked*, October 28, 2011.
5. Wee, Sui-Lee, *Reuters, China denies it is behind hacking of U.S. satellites*, October 31, 2011.
6. Jackson, William, *GCN, China puts itself in the cyber crosshairs – what now?*, October 28, 2011.
7. Keizer, Gregg, *Computer World, 'Nitro' hackers use stock malware to steal chemical, defense secrets*, October 31, 2011.
8. Tomesco, Frederic, *Bloomberg, Canadian Potash Company Data Target of Hackers*, *Citizen Says*, October 29, 2011.
9. Baldor, Lolita, *AP, US report blasts China, Russia for cybercrime*, November 3, 2011.
10. Jackson, William, *GCN, XML Encryption cracked, exposing real threat to online transactions*, October 24, 2011.
11. AP, *Hackers hit Nigeria anti-fraud agency website*, October 28, 2011.
12. UPI, *Napolitano: Hackers pose major U.S. threat*, October 27, 2011.
13. Coughlin, Con, *Telegraph (UK), Foreign hackers 'putting UK firms out of business'*, October 24, 2011.
14. Ashford, Warwick, *Computer Week, Hack at Japan's mapping agency raises concerns about a sustained attack*, October 31, 2011.
15. Finkle, Jim, and MacMillian, Robert, *Reuters, Microsoft software bug linked to "Duqu" virus*, November 1, 2011.
16. Schwartz, Matthew, *Information Week, Duqu Malware: still No Patch*, November 2, 2011.
17. Finkle, Jim, *Reuters, Duqu hackers shift to Belgium after India raid*, November 3, 2011.
18. Gertz, Bill, *Washington Times, China blocks U.S. from cyber warfare*, May 12, 2009.

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*If everybody's thinking alike, somebody isn't thinking – George S. Patton*

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# Nuclear

It seems the amount of radioactive material released into the ocean by the Fukushima plant was 20 times more than claimed; making this the largest release in history [1]. In spite of the lack of candor from the owners of the stricken nuclear plant, the Government of Japan is ready to bail Tepco out [2]. For example, the first Japan taxpayer funded installment payment to Tepco, for \$11.5 billion was approved [3]. This is another example of the close ties between government and industry that make trading with Japan difficult. What's more, there are reports indicating nuclear fission is still taking place at the destroyed number 2 reactor [4]. Readers may recall, Tepco has had a history of scandal [5]. It is unclear if a country other than Japan would have allowed such troubled reactors to operate. Nevertheless, they are receiving a government bailout.

While Japan may have a lack of commitment to nuclear power domestically, this has not abated the desire to export the technology. Case in point, Japan is moving ahead with a plan to export nuclear technology to Vietnam [6].

Another area of active nuclear activity is the Middle-East. A big unknown is Iran's nuclear program. For instance, China is urging Iran to be flexible with its nuclear program and provided a warning that military force is not an acceptable outcome [7]. This warning

came after indications emerged that Israel may be planning a pre-emptive strike against Iran's nuclear facilities [8]. Concurrently, there are suggestions that the United Kingdom may also be planning a military attack against Iran [9]. To complicate matters, some believe that Iran already has nuclear weapons [10].

The U.S. is dismantling the last of its 9 Megaton H-Bombs, the B-53; leaving the 1.2 megaton B-83 as the largest bomb in the inventory [11]. So not only is the U.S. reducing the numbers of nuclear devices but also the explosive yield of the remaining weapons. Meanwhile, Iran appears to be working on a system to detonate nuclear weapons at the edge of the atmosphere; thereby creating an electromagnetic pulse that could destroy most of America's electronics [12]. What's more, Iran continues to receive missiles from China in violation of UN sanctions [13].

1. Thomas Beth, Bloomberg, *Fukushima Plant Released Record Amount of Radiation Into Ocean*, October 31, 2011.
2. Obe, Mitsuru, Wall Street Journal, *Tokyo Is Close to Providing Aid to Keep Tepco Afloat*, October 31, 2011.
3. Tsukimori, Osamu, and Ishiguro, Rie, Reuters, *Tepco gets \$11.5 billion for compensation scheme*, November 4, 2011.
4. Saoshiro, Shinichi, Reuters, *Possible new "fission" found at Japan's wrecked nuclear plant*, November 2, 2011.
5. Becker, Marcus, Der Spiegel, *Japanese Nuclear Plant Operator Plagued by Scandal*, March 23, 2011.
6. Sekiguci, Toko, Wall Street Journal, *Japan, Vietnam to Move Forward on Nuclear Deal*, October 31, 2011.
7. Reuters, *China urges Iran be flexible on nuclear program*, November 4, 2011.
8. Kotsev, Victor, Asia Times, *Israeli sends out loud warning to Iran*, November 5, 2011.
9. Hopkins, Nick, Guardian (UK), *UK military steps up plans for Iran attack amid fresh nuclear fears*, November 2, 2011.
10. Kahlili, Reza, Washington Times, *KAHLILI: Iran already has nuclear weapons*, October 27, 2011.
11. Blaney, Betsy, AP, *US's most powerful nuclear bomb being dismantled*, October 20, 2011.
12. Fulghum, David, Aviation Week & Space Technology, *Next-Gen Threats*, October 24, 2011.
13. Gertz, Bill, Washington Times, *China-Iran Missile Sales*, November 2, 2011.

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Written reports stifle  
creativity – Ross Perot

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## World News

When it comes to export driven countries such as Japan, the government does all it can to help the export industry. Consider that Panasonic forecasted big losses due to the strength of the Japanese currency, the Yen [1]. Japan's finance minister, also concerned the rising Yen (Japan's currency) would hurt exports, warned, Japan would start buying dollars [2]. Case in point, after Japan purchased large quantities of dollars, the dollar rose to a 3-month high [3]. So far, Japan purchased \$89.8 billion in dollars [4]. This illustrates the commitment of Japanese government to its industries. In contrast, the U.S. appears complicit with evermore jobs exported resulting in tax revenue depletion. Elsewhere in Japan, a number of radioactive cars that couldn't be exported were instead sold domestically [5]. If Japan is knowingly selling radioactive cars, where is the

quality control?

In the area of science and technology, one study suggests Chinese developers lead the U.S. in math and logic, but lag in programming skills [6]. Moreover, China launched another spacecraft that is planned to remotely join with a module launched last September [7]. When the docking was successful, this accomplishment demonstrated how far China has advanced in space [8].

1. Yasu, Mariko, Bloomberg, *Panasonic Forecasts Biggest Loss in Decade on Strong Yen*, TV, October 31, 2011.
2. Sposato, William, and Narioka, Kosaku, Wall Street Journal, *Kapan's Minister Promises 'Action'*, October 24, 2011.
3. Bernard, Stephen, Wall Street Journal, *Dollar Surges as Japan Sells Yen*,

October 31, 2011.

4. Langeland, Terje, Bloomberg, *Toshiba, Nippon Yusen Call for Further Government Action on Yen*, October 31, 2011.
5. Wilson, Greg, NBC, *Radioactive Used Cars Being Sold in Japan*, October 26, 2011.
6. Taft, Darryl, eWeek, *U.S. Tops China in Programming, but lags in Math, Logic*, October 19, 2011.
7. Amos, Jonathan, BBC, *Chinese Shenzhou craft launches on key space mission*, October 31, 2011.
8. Jacobs, Andrew, New York Times, *China's Space Program Bolstered by First Docking*, November 3, 2011.

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*Ability is nothing without opportunity – Napoleon Bonaparte*

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