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# IN THE NEWS

VOLUME 2 ISSUE 6

FEBRUARY 8, 2009

# **IT Security**

ata breaches are a continuing problem and tricky to protect against using existing tools. Furthermore, once a system is compromised, the consequences are increasing with an estimated \$202 cost per stolen record [1]. What's more, even companies selling security products can be victims. Case in point, SRA alerted Government workers of a security breach [2]. The SRA breach places approximately 1,400 Maryland residents information at risk [3]. In another example of organized hacking, during a 30 minute window, 130 ATMs in 49 cities were drained of \$9 million using cloned ATM cards [4]. To create the cloned cards, the attackers used information taken from the RBS WorldPay breach reported by the company last December [5]. The cloned cards used in the attack illustrating a very sophisticated and coordinated attack [6].

Hackers continue attacking Internet connected sites. For example, both USAjobs.gov and monster.com job search sites were hacked [7]. A significant challenge is most commercial products have security vulnerabilities. This is one reason we believe it is critical to integrate security in into holistic network realization. More on this topic in the article "PAIIWG Punks" on page 3. In other news, tracing a person's movement is a renewed concern. Case in point, Google is offering a "location-aware" service the will continuously broadcast a person's cell phone location [8]. Knowing where a person goes throughout the day would benefit advertisers.

Malicious software (malware) continues to cause damage. For example, Municipal Courts in Houston were shut down due to infected com-



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## **Economic News**

he 7th bank regulators shuttered the this year was the FirstBank Financial Services, in Georgia [1]. The 8th bank closed was the Alliance Bank, located in California [2]. The 9<sup>th</sup> bank closed was the County Bank, also located in California [3]. The three closures are expected to cost the deposit insurance fund \$452 million [4].

The saga of Bernie Madoff continues. During congressional hearings, one person, Harry Markopolos, claims to have provided the SEC back in 2000 with information questioning the validity of Madoff 's investments [5]. In

what some are calling the worst day in the SEC's history, congressional hearings into Madoff continued on Wednesday, February 4 [6]. At one point, Congressman Paul Kanjorski accused the SEC of hampering the house Madoff probe [7]. The new SEC Chairwoman promised to reform the enforcement bureau and allow tipsters to access senior SEC officials [8]. Furthermore, the list of Madoff clients was published and includes Bank of America and Citigroup [9]. This illustrates the interdependencies amongst many of the financial institutions. Conse-

quently, when one entity suffers losses others may follow. This is one reason why when Lehman Brothers was allowed to fail, it impacted the entire financial industry in ways still being calculated.

Currently, 4.8 million are collecting unemployment benefits, the highest number in the 40 years records were kept [10]. Fearing a trade war, the President has backed away from the "Buy American" clause in the new stimulus bill [11]. A congressional oversight panel suggests TARP received bank assets valued at \$176 billion in exchange for capital purchases

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#### Special points of interest:

- Internet breached: SRA, Monster.com, & USAjobs.gov
- Digital TV conversion delayed until June 12
- 4.8 million collecting unemployment benefits, the highest number on record (40 years)
- Coordinated hacker attack drain \$9 million from ATMs
- 7th, 8th & 9th banks shuttered this year

#### (Continued from page 1)

puters [9]. In Springfield, Missouri, Internet access was disconnected as the city tried to eliminate a computer virus from its network [10].

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(Continued from page 1)

of \$254 billion [12].

At a time when the

At a time when the broadcast industry is suffering financial losses, a bill to delay the cutover to digital from February 17 to June 12, was passed by the Senate on February 4 [13].

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Vote early and vote often –

Al Capone

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## PAHWG Punks

he Interagency Advisory Board (IAB) meeting was held on February 2. One of the speakers, Bill MacGregor from the NIST, made a statement that Personal Identity Verification (PIV) authentication relies on Public Key Infrastructure (PKI) path validation for high assurance. Furthermore, this requires network connectivity or short term caching. Hold that thought, a network is necessary for high assurance authentication.

Later, Tim Baldridge offered an update for assigning the unique numbering scheme using the Globally Unique ID (GUID). Originally, the plan was to use an IPv6 address. However, the case made was IPv6 should be limited to

network addresses. Pause here and think about the necessity for a network. Tim continued that the Physical Access Interagency Interoperability Working Group (PAIIWG) was exploring a new concept based on clock created pseudo random number specified in RFC 4122 [1].

We have seen repeatedly, security is normally overlooked early in standards development with costly consequences afterward. Hackers continue finding ways to exploit network protocols. Early in computer security, there was the concept of a reference monitor, a small but trusted hardware/software based security control [2]. Today, the PIV card is the most trusted security control in most computers. Recent Internet exploits continue to depreciate the benefits of Internet while adequate security is lacking. The original PACS documentation described using an IPv6

address for the GUID; effectively taking a step into Internet security, Furthermore, there are a number of security challenges that must be addressed in implementing IPv6 net-

works [3]. Using the PIV card to enhance network security emerges as a logical extension. During Microsoft's IAB presentation, the presenter mentioned that windows version 7 would work with the PIV card without third party software; unlike windows XP & Vista. Currently, a path validated signature certificate with a proper User Principle Name (UPN) is necessary for logging in. {Note: At some future

The number of IPv6 addresses

point, it would be good to

have a tag (IPv6) and the asso-

ciated 128-bit value within the

certificate for use in common

Unlike UUIDs generated by

distributed assignment of IPv6

addresses guarantees unique-

ness. Looking further into the

future, the PIV card may well

be the only trusted security

control in many computers.

What's more, since networks

are essential for path valida-

tion; the PIV card could

evolve to another network

resource. This is exactly the

reason IPv6 was given a 128-

bit address space, so every

network resource could be

assigned a unique address.

Currently there are over a

billion internet users [4]. So

how many IPv6 addresses are

there? The answer is over 340

billion, billion, billion

unique addresses. By provid-

ing every Internet connected

RFC 4122, the central and

authentication.

resource with an address (including a PIV card), powerful and optimized audit tracking is possible. Using the IPv6 addresses as database index values, audit mechanism cost and complexity can be reduced thereby enabling existing tools to trace by Internet address.

One problem raised was the FASC-N can only be issued by Government agencies. What's more, the FACS-N identifies the agency and other information using a complex format. In contrast, IPv6 address can use Internet lookups to identify the owner and make certain the address is still valid. Should the UUID be used, expensive custom applications will be required to ascertain comparable in-

formation.

Work needs to be done within

the certificate format to make IPv6 practical. What it does for physical access is provides a starting method focusing on an integrated role where the PIV card helps protect the will be integral to the PIV card.

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network. Most likely, the IPv6

chickens? -Seymour Cray

If you were plowing a field,

which would you rather use?

Two strong oxen or 1024

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### Overseas News

For the first time, China purchased more new cars in a month (January) than did the U.S. [1]. Elsewhere in China, a man died after his cell phone exploded [2]. There was no mention if the phone or battery was counterfeit.

It seems our potential adversaries are continuing missile programs. For example, North Korea is preparing another long-range missile test [3]. Furthermore, Iran launched a satellite into space [4]. If Iran can launch a satellite in orbit, it can construct a rocket capable of reaching any location on Earth.

Throughout the years, Japan has built an export based economy. As the rest of the world faces a protracted recession, the island country is experiencing a downturn.

he SEC warned that the

I number of Ponzi schemes

Case in point, Toyota is on track for its first reported loss, \$3.85 billion, since 1950 [5]. What's more, Sharp announced 1,500 job cuts following the loss of \$1.1 billion [6]. Another electronic giant, Panasonic, plans to cut 5% of its workforce following an annual \$ 4.2 billion loss [7]. Interestingly, Japan is not immune from Ponzi schemes. For example, the Japanese chairman of a health-products company was arrested for an alleged \$2.5 billion Ponzi scheme [8].

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The cynics are right nine
times out of ten—Henry Louis
Mencken

#### is not increasing but the size of the scheme is [1]. It is unclear why the SEC believes the number of Ponzi schemes is decreasing. Consider the following examples that indicate otherwise. A Minnesota man allegedly bilked victims of a Ponzi scheme out of \$5.5 million [2]. Furthermore, in Washington state, 3 men were indicted by a grand jury for an alleged \$65 million Ponzi scheme involving oil and gas drilling [3]. In Missouri, a man pleaded guilty to a \$4.5 million dollar Ponzi scheme [4]. In New Orleans, a financial planner was accused of operating a \$3 million Ponzi scheme [5]. In Arizona, a CPA was accused of a \$75 million

Ponzi scheme [6]. In Illinois,

six funeral homes are suing

the Illinois Funeral Directors

## Crime Report

Association, accusing them of operating a \$190 million insurance Ponzi scheme [7].

Other white collar fraud continued to make the news. For example, in Mississippi, two people were convicted of receiving over \$5 million in a Medicare fraud scheme [8]. In New York, a former hedge fund manager was charged with insider trading that netted \$7 million [9].

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