# VANGUARDIAN NEWS - VANGUARD INTEGRITY PROFESSIONALS

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#### Who is John Connors?

John Connors Vice President of Technology

As the Vice President of Technology, John's responsibilities include IT, QA, Support, and Development. John has more than 40 years of cybersecurity experience. John joined Vanguard's Professional Services Team as a Senior Professional Services Consultant in April 2002. Today, John has assumed leadership of technical operations for Vanguard and guides Vanguard clients with various enterprise security issues as customers struggle with integration of z/OS Security Server and numerous other enterprise security systems. Connors a recognized expert in multiple cybersecurity disciplines, including securing TCP/IP and other communication protocols, securing UNIX implementation and evaluations of network-based security control systems.



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Connors has a broad based technical background with expertise and certifications including Microsoft Certified Systems Engineer (MCP, MCP+I, MCSE), Cryptographic System Repairman, Computer Languages including .NET, C#, C++, ADA, PHP, Visual Basic, HTML, SQL, Perl, Dbase III, ACCESS; CISCO Firewalls, Switches, Routers, Frame Relay, ATM, Microsoft Information Server, Microsoft SQL Server, Microsoft Site Server, VTEL Video Communications Systems, TC2000, Multi-point Conference units, AT&T Switches, Dimension 400, 2000, System 75/85 and G3.

Prior to joining Vanguard, Connors served for over 24 years in the United States Air Force where he was the Secure Communication Specialist/Superintendent of Network Operations. After a long, successful career with the military, he finally retired as Chief of Special Projects responsible for managing large scale command control communication and computer systems. John's commercial background roles include Operations Manager and Chief Architect for a large ASP and Senior Systems Engineer for a major computer integrator.

#### 2017 Data Breach Investigations Report

The Verizon Data Breach Investigations Report (DBIR) delves into the murky world of cybersecurity. It brings together the collective experience of 65 organizations to give you the full picture on cybercrime.

#### Are you Gambling with your Future?

If you haven't suffered a data breach you've either been incredibly well prepared, or very, very lucky. Are you incredibly well prepared?

#### No one thinks it's going to be them. Until it

**is.** Hollywood has a lot to answer for. According to the movies, cybercriminals operate out of badly lit disused warehouses, target carefully selected conglomerates and use things like "worms" and "keys" to gain access. This caricature has lulled many into a false sense of security, believing that data breaches are something that happen to someone else.

The reality is that cybercriminals rarely fit that profile. They're opportunistic; using scattergun techniques like phishing to trawl for weak points that they can use as a foothold to launch their attack. And their intent is rarely world domination, it's normally just money.

Whether it's design plans, medical records or good, old-fashioned payment card details—someone, somewhere will see it as their meal ticket. Most cybercriminals are not fussy about who they steal from.

## Organizations think they've got the basics covered.

People are still falling for phishing—yes still. This year's DBIR found that around 1 in 14 users were tricked into following a link or opening an attachment —and a quarter of those went on to be duped more than once. Where phishing successfully opened the door, malware was then typically put to work to capture and export data—or take control of systems.

## verizon

#### Quick Takeaways

#### Be vigilant

Log files and change management systems can give you early warning of a breach.

#### Make people your first line of defense Train staff to spot the warning signs.

Only keep data on a "need to know" basis Only staff that need access to systems to do their jobs should have it.

#### Patch promptly

This could guard against many attacks.

Encrypt sensitive data Make your data next to useless if it is stolen.

#### Use two-factor authentication

This can limit the damage that can be done with lost or stolen credentials.

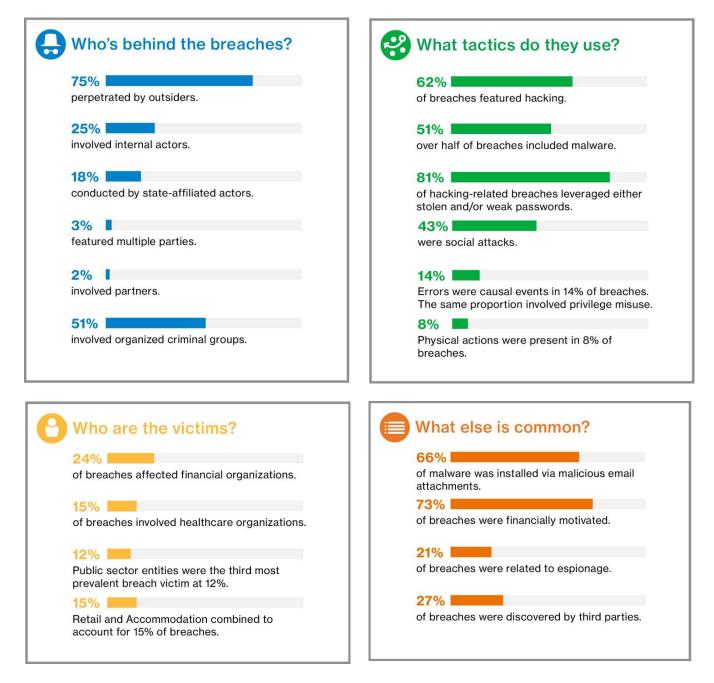
#### Don't forget physical security

Not all data theft happens online.

## People are also still failing to set strong passwords.

80% of hacking-related breaches leveraged either stolen passwords and/or weak or guessable passwords.

People rely on how they've always done things. Many organizations are still relying on defenses that are out of date. It's tempting, especially if you didn't suffer a major incident, to keep the same defenses from year to year. But are those defenses aligned with the threats that organizations like yours really face?



#### **Build your Defenses Wisely**

While attackers are using new tactics and tricks, their overall strategies remain relatively unchanged. Understanding them is critical to knowing how to defend your organization from cyberattacks. Understanding these attack patterns helps struggling security professionals gain insight on where and how to invest their limited resources. For everyone else, the patterns provide a quick and easy way to assess where the most likely danger will arise. So, if you're commissioning a new app or creating a new process, you can build security in from the start.

#### Crimeware

All instances involving malware that did not fit into a more specific pattern.

#### Ransomware is big business

In the 2014 DBIR, ransomware was the 22nd most common form of malware. This year it's number five, and the most common in the Crimeware pattern. For the attacker, holding files for ransom is fast, low risk and easily monetizable – especially with Bitcoin to collect anonymous payment.

#### What you can do

Watch out for macro-enabled MS Office documents and stress the importance of software updates to anyone who'll listen.

#### Cyber-Espionage

Attacks linked to state-affiliated actors, and/or with the motive of espionage.

#### Welcome to the long game

A malicious email is the cyber spy's favored way in. But this is no smash and grab. The initial email is typically followed by tactics aimed at blending in, giving the attacker time to collect the data that they need.

#### What you can do

Throw your weight behind security awareness training and encourage your teams to report phishy emails. Make it difficult for the adversary to pivot from a compromised desktop to other devices on your network.

#### Insider and Privilege Misuse

Any unapproved or malicious use of organizational resources.

#### The enemy within

In 60% of cases, insiders abscond with data in the hope of converting it to cash in the future. But sometimes it's a case of unsanctioned snooping (17%), or taking data to a new employer or to start a rival company (15%).

#### What you can do

Implement limiting, logging and monitoring of use, and watch out for large data transfers and use of USB devices.

#### **Miscellaneous Errors**

Unintentional actions that directly compromised the security of company data.

#### Mistakes were made

They can appear innocuous, but data lost through errors can be harmful too. Especially if – as in 76% of cases – it's the customer who makes you aware of your slip-up.

#### What you can do

Have, and enforce, a formal procedure for disposing of anything that might contain sensitive data. And establish a four-eyes policy for publishing information.

#### **Denial of Service**

Any attack intended to compromise the availability of networks and systems.

#### Being hit where it hurts

DDoS attacks are nearly always (98%) targeted at large organizations. And while some unlucky souls face a constant barrage all year round, most attacks are over within a couple of days.

#### What you can do

Check that you have DDoS mitigation services in place to thwart any attacks, that they're regularly tested, and that they actually work.

#### **Payment Card Skimmers**

All incidents where a skimming device was placed on a payment card reader.



#### Hit the gas

While ATMs continue to be the main target for skimming, the number of gas pump terminals used to harvest payment card information more than tripled compared to last year's DBIR. Skimming attacks are almost always discovered by third parties.

#### What you can do

Train employees to spot signs of tampering, monitor payment terminals with video surveillance and make sure the tapes are reviewed regularly.



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#### Align your defenses

If you were off on an Arctic expedition you'd probably leave the shorts at home and double-up on the thermal underwear. The same applies when assessing where to spend your precious budget. The scorecards above help you understand the tactics that have been used against others in your industry. When you know where the greatest threats lie, you can align your defenses with the threats.

#### You don't have to be big or famous

The insider threat is nothing new in healthcare. But it's not just about taking a sneak peek through health records to reveal the name or sex of a celebrity's newborn before it appears in the press. It's often about identity theft and cloning the identities of everyday people. Similarly, it's not just household brands that find themselves on the cyber spies' hit list. Start-ups are targeted for their breakthrough technology. More established companies fall victim for their sales lists. And others are identified as a soft target useful as a stepping stone to their partners' systems.

#### Physical Theft and Loss

Any incident where physical assets went missing – deliberately or accidentally.

#### People lose things

Measures such as encryption can stop theft and loss incidents from becoming breaches. But encryption can't always help - the majority of confirmed breaches involved the loss of hardcopy documents.

#### What you can do

Encrypt wherever possible and establish a corporate culture that frowns upon printing out sensitive data.

#### 61%

of the data breach victims in this year's report are businesses with under 1,000 employees.

#### Point of Sale Intrusions

Remote attacks against POS terminals

#### Fruitful POS

and controllers.

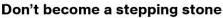
Point of sale (POS) environments continue to provide rich pickings for the bad guys, with nearly 98% of all recorded POS attacks resulting in a confirmed data breach. The focus of attacks has shifted from hotel chains to restaurants and small businesses.

#### What you can do

Request a review of third-party POS vendors and their security practices - with an emphasis on remote access.

#### Web Application Attacks

Any incident in which a web application was used as the means of attack.



Not all websites hold payment card data, but they still often request users to sign up: submitting their names, addresses and more. Security is often weaker than online retail sites, so attackers use them as an easy way to grab personal data and credentials to use elsewhere.

#### What you can do

Encourage customers to vary their passwords and use two-factor authentication. Limit the amount of sensitive information stored in web-facing applications.

### 95%

of phishing attacks that led to a breach were followed by some sort of software installation.



http://www.verizonenterprise.com /verizon-insights-lab/dbir/2017/







#### WELCOME TO THE NEW VANGUARD CYBER ZONE CUSTOMER PORTAL

The New Vanguard Customer Portal was specifically designed for our customers.

The Vanguard Cyber Zone is a secure environment where customers can download the latest Vanguard software, access manuals and DISA STIG checklist. They can learn about what's new with Vanguard products and solutions. They can request a new datecode or report a problem.

The Vanguard Cyber Zone – Customer Portal is where customers can request a new feature or an enhancement. It is the new Launch Pad for webinars and entry portal for the new VSC LIVE Broadcast and other recorded technical training sessions. Stay tuned for launch dates.







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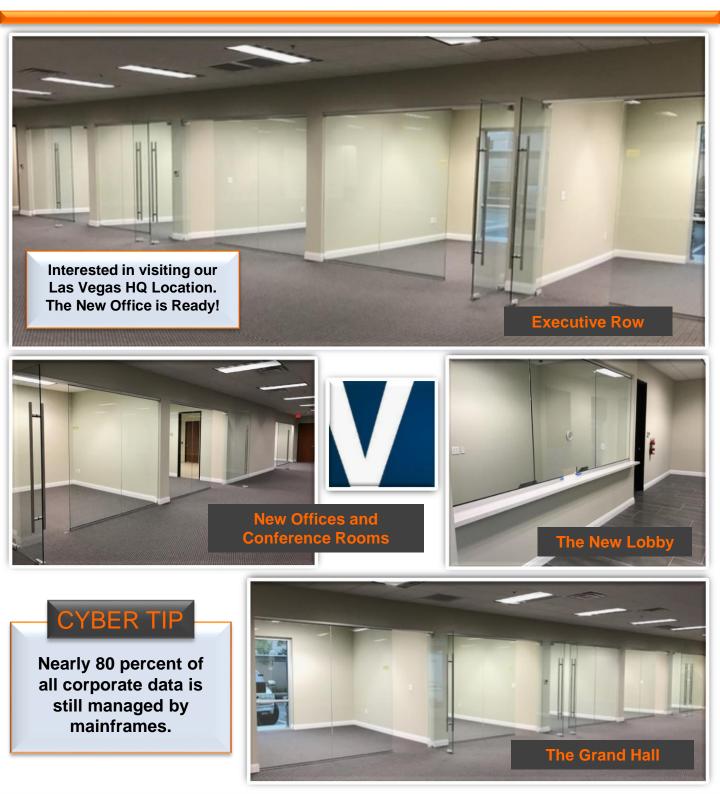
#### Vanguard 2018 Trade Show & Events

March 11-16, 2018	SHARE Sacramento 2018	Sacramento Convention Center	Sacramento, CA
April 30-May 02, 2018	North America CACS 2018	Chicago Hilton	Chicago, IL
April 30-May 04, 2018	2018 IBM Technical University – Spring	Hilton Orlando Resort	Orlando, FL
May 28-30, 2018	2018 CACS Euro	Edinburgh International Conference Centre	Edinburgh, Scotland
August, 12-17, 2018	SHARE St Louis 2018	St Louis Convention Center	St. Louis, MO
August, 20 – 22, 2018	Evanta (Gartner) Global CISO Executive Summit 2018	Westin Hilton Head	Hilton Head, SC
October 15-17, 2018	CSX 2018 North America	Cosmopolitan of Las Vegas	Las Vegas, NV
November, 2018	GSE UK Conference 2018	Whittlebury Hall	United Kingdom
TBD	Vanguard Security & Compliance Conference 2018		



#### WELCOME TO THE NEW VANGUARD HQ CAMPUS – PROJECT COMPLETION





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