



**Small merchants remain  
complacent about  
PCI DSS compliance,  
despite mounting risks.**

**I**n “Gone with the Wind,” Scarlett O’Hara chooses to procrastinate when faced with a difficult problem: “I can’t think about that right now. If I do, I’ll go crazy. I’ll think about that tomorrow.”

Many small business owners appear to be suffering from a form of “Scarlett Syndrome” when it comes to the Payment Card Industry Data Security Standard (PCI DSS). A new report reveals a stubborn, multiyear trend of minimal growth in data security awareness and overall indifference in small merchants’ perceived risk of a data breach.

The report, developed by ControlScan in conjunction with Merchant Warehouse, focuses specifically on PCI DSS compliance among Level 4 merchants. Level 4 merchants, as defined under PCI guidelines, are those who process fewer than 20,000

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## Yawn with the Wind

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electronic credit card transactions per year. Although they conduct the fewest transactions, Level 4 merchants make up 99 percent of U.S. businesses that process credit cards.

“Just under half of this year’s respondents indicated they are unaware of the PCI DSS,” said Joan Herbig, CEO of ControlScan. “That finding, combined with the fact that 79 percent of respondents think their business has little to no risk of breach, indicates a serious disconnect between Level 4 merchants and the ISOs and acquiring banks serving them.”

### Frankly, They Don’t Give a Darn

The report, “A Tale of Two Merchants: The Fourth Annual Survey of Level 4 Merchant PCI Compliance Trends,” is based on survey responses from 603 merchants. Overall, most respondents familiar with the PCI DSS rank security as “medium” or “high” among their organizations’ overall priorities — however, only 50 percent have actually validated their PCI compliance. Ecommerce merchant respondents are above the average at a 70 percent completion rate, while brick-and-mortar merchants are below the average at 45 percent. When all respondents are included in the calculation, the overall PCI compliance rate for these Level 4 merchants drops to 30 percent.

That is an astoundingly low number considering these are the very merchants who are most frequently targeted by

hackers. In a June 2012 presentation, Visa reported that Level 4 merchants experienced a 15 percent rise in reported compromise events from 2010 to 2011, with 70 percent of incidents involving brick-and-mortar merchants. There is a correlation between PCI non-compliance and data breaches. According to the Verizon 2012 Data Breach Investigations Report, 96 percent of breach victims were not PCI-compliant.

Despite the obvious risk, PCI-related complacency has remained consistent during four years of the ControlScan/Merchant Warehouse survey.

“The four years’ worth of data now in place show that Level 4 merchants have an urgent need for education and hands-on support to effectively protect their businesses from data thieves,” said David McSweeney, executive vice president, Operations, Merchant Warehouse. “Small merchants require more personalized outreach and scalable solutions that make sense and are affordable for their business.”

### Time for Action

Small-businesses owners are typically focused on operations and often lack the time, inclination or expertise to effectively address data security issues. IT service organizations can provide valuable assistance by increasing business awareness of security risks and delivering solutions that help improve compliance.

To encourage compliance, particularly among small merchants, the PCI Security Standards Council in November 2012 issued new guidelines on how businesses storing, processing or transmitting payment-card information should conduct an annual risk assessment. The guidelines can be downloaded at the council’s website ([www.pcisecuritystandards.org/security\\_standards/documents.php](http://www.pcisecuritystandards.org/security_standards/documents.php)).

“As there are a number of risk assessment methodologies out there, our stakeholders were looking for guidance on how to effectively apply these principles to their organizations to meet PCI requirements,” said Bob Russo, general manager, PCI Security Standards Council. “Through our community-driven election process, our participating organizations selected this as a key focus area, and the result is a strong set of best practices to guide you through choosing the risk management approach that works best for your business.”



## Cyber Security Alliance Formed

Leading technology companies have announced the creation of the Cyber Security Research Alliance (CSRA), a private, nonprofit research consortium formed to increase public-private collaboration to address complex problems in cyber security. Founding members include Advanced Micro Devices (AMD), Honeywell, Intel, Lockheed Martin and RSA/EMC.

CSRA seeks to achieve coordinated industry participation to address national cyber security research and development imperatives and bridge the gap between government-funded R&D and commercially available products and solutions in cyber security. CSRA will focus on challenges that are bigger than any one company, consortium, sector or nation and ensure that government, industry and academia collaborate on in-depth problem understanding and definition.

## Cloud-Service Spending Grows

Worldwide spending on public IT cloud services will surpass \$40 billion in 2012 and is expected to approach \$100 billion in 2016, according to a new forecast from IDC. The research firm says public IT cloud services will enjoy a compound annual growth rate of 26.4 percent — five times that of the overall IT industry — through 2016 as companies accelerate their shift to the cloud services model for IT consumption.

By 2016, public IT cloud services will account for 16 percent of IT revenue in five key technology categories: applications, system infrastructure software, Platform-as-a-service (PaaS), servers and basic storage. More significantly, cloud services will generate 41 percent of all growth in these categories by 2016.

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# IaaS Goes Mainstream

*Study shows production systems rapidly moving into cloud-services environments.*

Public cloud adoption appears to have moved beyond the testing and development phase, with more than two-thirds of organizations in a recent study reporting they are now running mission-critical workloads in Infrastructure-as-a-Service (IaaS) environments.

The study, commissioned by virtualization specialist VMware and conducted by analyst firm Enterprise Strategy Group (ESG), examined the public-cloud usage patterns of 243 IT and business professionals in North America and Western Europe. More than 80 percent of reported that they are running production workloads on IaaS, with 67 percent characterizing the workloads as “mission-critical.”

In addition, 70 percent said they use cloud storage services, 58 percent said they are using cloud servers, and 53 percent are leveraging disaster recovery services using IaaS.

## Compatibility Important

In the IaaS model, users pay a provider for access to virtual servers, storage and networks on which they are able to deploy and run operating systems and applications of their choice. It allows companies to avoid hardware and software investments, in return for paying usage fees.

In the VMware/ESG study, 83 percent of respondents indicated the underlying technology used to deliver IaaS was of some level of importance to them, with nearly half citing it as a very important or critical fac-

tor. More than three-quarters (78 percent) of respondents reported that it was also important that their cloud service providers' infrastructure technologies were compatible with their internal private cloud /virtualized data center.

"The study demonstrates that IaaS from cloud service providers is seeing broad adoption by mainstream business for business-critical applications and data, moving beyond test and development," said Mathew Lodge, VMware's vice president of cloud services. "As IaaS adoption grows, so does the importance of strong customer service and support, as well as the quality of the underlying technology. Compatibility with existing virtualized data centers and private clouds was also key."

### IaaS Spending Surges

A separate report by the global research firm Pierre Audoin Consultants (PAC) notes that the IaaS market is expanding rapidly, forecasting that it will generate roughly \$39 billion in worldwide expenditures in 2012 — up from \$27 billion in 2011 — and is set to reach \$90 billion by 2016. Those figures cover both public and private IaaS deployments.

"Traditional IT services have been widely based on complexity and heterogeneity, while cloud represents standards and ease of use," said Karsten Leclerque, PAC principal consultant for outsourcing and cloud. "This is why practically all suppliers are currently trying to determine their future positioning along the cloud value chain, aiming to defend existing business, and looking to tap new revenue streams. There will be a new competitive landscape as well as new cooperation models emerging from the cloud trend."

Despite the impressive growth of public IaaS services there have still been obstacles to broader adoption. Privacy and availability of data and resources are often at the heart of cloud discussions. CIOs also fear an increased complexity of IT services management when including third-party cloud solutions into their IT architectures. Nevertheless, IaaS and other cloud models are likely to remain on top of IT agendas in the coming years.

"Users are well aware of the various benefits and are strongly interested in exploiting them; but they should not blindly follow the cloud trend," Leclerque said. "Cloud usage promises many advantages, such as potential cost reduction, and access to resources without the need to invest in own infrastructures. The concept is still emerging, though, and there are many different concepts and offerings in the market, with different security and service levels, that might or might not fit your needs."

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# VoIP Going Mobile



Employee mobility and BYOD programs are driving business mobile VoIP adoption.

Voice over IP (VoIP) has evolved to become the foundation of business communications across industry sectors. IP-PBXs are popular because they deliver a host of business benefits, including cost savings, flexibility, simplified administration, advanced features and more.

Increasingly, the benefits that IP-based communications deliver are being extended to mobile devices through mobile VoIP. According to technology research and consulting firm In-Stat, the number of business mobile VoIP users will increase tenfold over the next five years, with implementation both enterprise- and individual-driven.

“There are several reasons that adoption of mobile VoIP makes sense,” said In-Stat Senior Analyst Amy Cravens. “Some of these include the ability to take the desktop phone experience with you, the ability to utilize the benefits of IP-based communication features, a cheaper international long-distance cost, an easy implementation path and better indoor coverage where cell phone reception has historically been poor.”

## Business Drivers

Mobile VoIP is an extension of enterprise IP communications that enables VoIP calls to be placed over a cellular data or Wi-Fi network from a mobile device. Voice traffic travels over the available broadband connection, whether that connection is 3G, EDGE, Wi-Fi or GPRS.

Like fixed VoIP, mobile VoIP is being adopted in both the consumer and business segments, but has only recently begun to be implemented in the business environment. Yet growth rates are strong and In-Stat predicts that business use will have grown to nearly 83 million lines/seats by 2015. Ultimately, IP-PBX users will account for the majority of business mobile VoIP usage.

Mobile VoIP is increasingly popular because it combines IP desk phone functionality with the flexibility of smartphones. Mobile VoIP empowers organizations to create a more productive, responsive and accessible workforce by extending the full power of an IP desk phone and unified communications (UC) capabilities to the mobile user. Dual persona features ensure easy separation of personal and business identities on a single mobile device. Seamless and automatic selection of the best available network — Wi-Fi or cellular — enables users to communicate from anywhere.

Mobile VoIP also enables enterprises to reduce their overall telecom costs by eliminating international roaming and direct dial costs on mobile devices. It also allows organizations to right-size the number of IP desk phones that are purchased and maintained.

## Eliminating the Chaos of BYOD

Mobility is not the only factor driving mobile VoIP adoption. As the workforce becomes younger and more tech-savvy, employees continue to introduce consumer tools and services

into the enterprise — with and without the blessing of IT departments. Experts call this the “consumerization” of IT and expect it to dramatically alter the way businesses choose, use and manage technology. The consumerization of IT is driving the “bring your own device” (BYOD) revolution, in which employees use personally owned devices for work.

Mobile VoIP solutions that integrate smartphones and tablets with leading IP-PBX systems extend corporate communication applications to employee-owned devices, reducing support burdens. IT can empower users with enterprise UC on the smartphones they love, leveraging the IP-PBX platform that they already have — all while reducing costs and securing enterprise communications.

“We are hearing a lot from clients looking for advice around BYOD, and we see this as a big issue for enterprises, in addition to the efficiency and productivity benefits that mobile devices bring. Enterprises should look to a solution that supports a broad range of leading smartphones and tablets, as the devices being used at work are not always company owned. Enterprises will prefer a solution that is part of their existing IP-PBX and UC system or works with the existing system, therefore avoiding upgrades or replacement of their existing infrastructure,” said Steve Blood, vice president of research at Gartner.

### Cost Savings and More

Mobile VoIP solutions also deliver some of the classic benefits associated with VoIP, including reduced costs and ease of administration. With software that switches networks intelligently and automatically between wireless and cellular for the best option available at any given moment, the latest mobile VoIP solutions can dramatically reduce international roaming and direct dial charges on smartphones. In fact, mobile VoIP can help organizations reduce their mobile phone bills by up to 70 percent on a broad range of smartphones.

Mobile VoIP empowers IT to manage enterprise communications in a BYOD environment in a way that reduces security risks without hindering productivity. The latest mobile VoIP solutions can ease the workload of IT staff by bringing enterprise IP-PBXs, UC systems and a plethora of mobile device platforms within a single management interface.

As workers increasingly rely on their own mobile devices for communications, enterprise VoIP and UC platforms need to be mobilized and infused with context such as presence and location information — anywhere and anytime. Mobile VoIP solutions provide the infrastructure to seamlessly extend desk phone functionality to smartphones and other devices. Mobile VoIP enables mobile workers to take advantage of the benefits of IP-based communications, while allowing organizations to reduce costs and better manage BYOD programs.



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# Managing Email

An e-mail retention policy and archival solution helps protect against legal, regulatory and business risks.

Email is a great business tool because it is fast, easy and inexpensive. However, so much business communication now occurs by email that it has become a potential liability for some organizations, often leading to costly and embarrassing mistakes.

With one in 10 workers reporting in a recent survey that they have more than 10,000 mails in their inbox, managing all those digital messages has become an overwhelming task — so much so that 62 percent of reported a significant mishap as a result of sending an email to the wrong person or with improper or unauthorized content. Additionally, the survey conducted by data governance software provider Varonis found that one in 20 companies reported compliance issues as a result of a wrongly sent email.

“Every data disaster now seems to involve an email,” said David Gibson, VP of Strategy, Varonis. “It’s clear that organizations shouldn’t take it for granted that employees intuitively know how to manage their massive inboxes, nor should they underestimate the consequences of email mismanagement.”

## Growing Burden

With 78 percent of respondents receiving up to 100 emails per day and nearly a quarter receiving 100 to 500 daily emails, the sheer number of messages create mounting pressure



on employees. Nearly 85 percent of those surveyed spend 30 minutes or more every workday organizing their mail.

Largely left to their own devices, workers tend to develop one of three different styles of personal email management. Thirty-four percent are “filers” who empty their inboxes on a daily basis and file messages into folders, 17 percent are hoarders who never delete but tag and keep emails in just a few folders, and 44 percent combine both practices. However, another 6 percent admit to completely giving up on maintaining control over their email, choosing to just delete everything periodically.

A comprehensive email retention policy coupled with an effective email archival solution can help relieve this pressure and reduce risk. By establishing best practices and implementing the right technology tools, organizations can ensure the successful management of email business records, reduce e-discovery costs, improve productivity and enhance security.

An effective email management strategy begins with the development of an email retention policy. The first step is to define, from a legal and regulatory perspective, what constitutes an electronic business record. This clearly written definition helps the organization distinguish messages involving business-related activities from insignificant and purely personal emails.

Once this definition is in place, the organization should make sure that every employee knows what kinds of messages must be retained, and understands his or her role in the organization’s overall email retention strategy. Because email is generated throughout the organization, email retention practices cannot focus on the IT department. All employees must take part in the archival of business-related emails and the purging of extraneous messages.

## Processes, Training and Automation

Next, organizations should establish the policies and procedures necessary to ensure compliance with legal and regulatory email retention rules. The email retention policy should also address business requirements and risks, and be updated regularly as laws change and new technologies are adopted. In addition to establishing email retention processes, organizations should define electronic business record life-cycles and delete messages as they become outdated.

Employees throughout the organization should receive training on how to comply with the formal email retention policy. This training should stress that policy compliance is mandatory. Enforcement through disciplinary action and technology tools not only helps ensure effective email management but illustrates to courts and regulators that the organization is serious about its email retention obligations.

Demonstrated consistency increases the odds of a favorable ruling should the organization become embroiled in an e-discovery dispute.

Email archival solutions play two key roles. First, these technology tools reduce e-discovery costs and help ensure policy compliance by automating email archival processes. Email business records are preserved in a way that enables structured searches for rapid compliance with e-discovery and regulatory requests as well as day-to-day business operations.

Second, email archival tools help ensure that email business records meet evidentiary requirements. Because email must be authentic, trustworthy and tamperproof to be considered legally valid, email archival solutions should encrypt messages and protect against the deletion or alteration of archived email.

## Business Benefits

E-discovery is touted as the primary reason for establishing an email retention policy and archival solution. Without effective email management, organizations face incredibly expensive and time-consuming e-discovery challenges as well as the potential for costly court sanctions if they fail to meet e-discovery deadlines.

Regulatory requirements also compel organizations to get a handle on email. Sarbanes-Oxley, HIPAA and the Gramm-Leach-Bliley Act all require the preservation, protection and control of business records, with the potential for huge fines and civil and criminal liability for noncompliance. Other government and industry regulations may also come into play.

However, effective email management can provide organizations with a number of other benefits. Email is not always a “smoking gun” — in fact, email often can be used to protect the organization from legal liability. The ability to produce the right email records at the right time helps win lawsuits, and may even compel an opponent to settle out of court. Email business records also help document transactions and personnel matters and aid in decision-making.

Given today’s litigious environment and increased regulatory scrutiny, organizations face significant email-related risks. Organizations of all sizes need an email retention policy and automated email archival solution to help speed the retrieval of email records related to a legal claim. Effective email management also helps ensure compliance with government and industry regulations and facilitates day-to-day business activities. Email is not a simple communication tool but rather a key component of any organization’s business records.

# Rise above your technology limitations



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