Turnaround and transformation in cybersecurity: Pharmaceuticals and life sciences

Key findings from The Global State of Information Security® Survey 2016

While pharmaceuticals and life sciences organizations ranked cloud computing as the top security challenge for 2015, many also seem to recognize its potential to transform their cybersecurity programs.

An enhanced cybersecurity practice is an increasingly important priority amid rising risks to employee and patient data, intellectual property, clinical trials results and information generated by health-monitoring devices. In 2015, pharmaceuticals and life sciences respondents detected 78% more security incidents than the year before, according to The Global State of Information Security® Survey.

While employee records have historically been the most-cited impact of security incidents, theft of "hard" intellectual property (IP) like trade secrets, pharmaceutical research, clinical trials data and device designs almost tripled this year. That's a troubling trend, given that IP and trade secrets often constitute a company's most valuable assets in research-intensive industries like pharmaceuticals and life sciences.

Top security challenges for 2015

1. Cloud computing
2. Data leakage prevention
3. Access control for end users
4. Identity & access management
5. Identity theft & loss of patient data

To address this rising tide of compromises, many organizations are implementing innovative new technologies like cloud-based cybersecurity and granular access control. They are also addressing the human aspects of security, including hiring a Chief Information Security Officer (CISO) and increasing Board involvement in cybersecurity. It's also worth noting that businesses are continuing to invest in security: Accelerating last year's spending increase, respondents boosted their information security budgets by 13% in 2015.

It all comes together on the cloud

The cloud is central to connecting today's digital ecosystem of data, networks and devices. The use of cloud computing among pharmaceuticals and life sciences companies increased significantly in 2015, with 71% of respondents now on the cloud.

Cloud computing also has emerged as a mainstream tool for security safeguards as 64% of organizations said they use cloud-enabled cybersecurity services. More than any other solution, pharmaceuticals and life sciences organizations are using cloud-based identity and access management (IAM) in tandem with traditional solutions. IAM is also a first line of defense in data leakage prevention, another critical concern.

Many organizations have adopted additional cloud-enabled services like advanced authentication to better manage access to data and systems, while others have deployed on-premises authentication technologies like software tokens and fingerprint or retina scans.

Securing the Internet of Things

Interconnected personal health-monitoring devices and business equipment are rapidly joining the billions of devices that comprise the Internet of Things (IoT).

Already, more than half of respondents said they have integrated consumer technologies such as wearable health-monitoring devices or operational systems like automated pharmacies with their IT ecosystem. Among those who have integrated health-monitoring devices, 79% said they accept data from these devices.

Many are taking action to address the security threats these interconnected systems can bring. Most said they have performed risk assessments and have implemented security controls for these devices and technologies. With good reason: Pharmaceuticals and life sciences organizations reported that security compromises of IoT components like operational systems, embedded devices and consumer technologies more than tripled in 2015.

The human aspects of cybersecurity

Technology alone will not deter all cyber-risks. That's why many organizations are also addressing the human aspects by hiring a CISO and promoting Board involvement in cybersecurity.

This year, 63% of respondents have a CISO in charge of security. At the same time, more than half of respondents said their Boards participate in security budget discussions. So it wasn't entirely surprising to find that the most-cited benefit of Board participation is better funding for information security programs.

Additionally, pharmaceuticals and life sciences organizations are sharing more cybersecurity threat intelligence and response techniques with external partners to better identify and respond to risks. This year, we saw a sharp increase in organizations that collaborate industry peers, Information Sharing and Analysis Centers, government entities and law enforcement.

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How pharmaceuticals and life sciences organizations are responding to rising cyber-risks

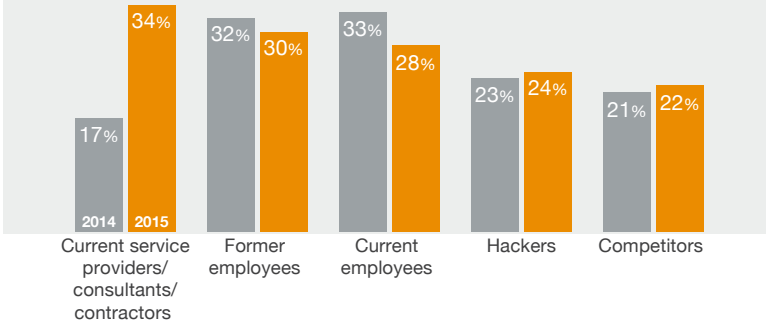
176%

Employee and customer records remain the top targets of cyberattacks, but theft of hard intellectual property skyrocketed **176%** in 2015.

78%

In 2015, respondents detected **78%** more information security incidents than the year before.

The number of respondents who cited current service providers/consultants/contractors as the source of incidents doubled in 2015, making this group the leading source of compromise.



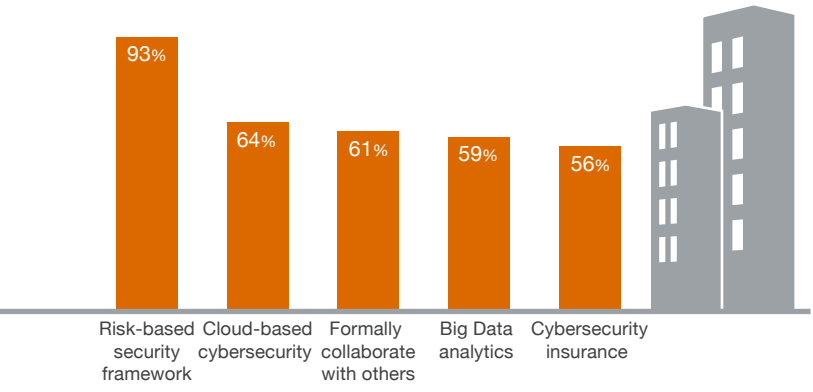
38%

13%

Estimated financial losses as a result of all security incidents climbed **38%** over the year before.

Accelerating last year's increase in security spending, respondents boosted their information security budgets by **13%** in 2015.

Many organizations are implementing strategic initiatives—such as risk-based frameworks and cloud-enabled cybersecurity—to improve security and reduce risks.



Businesses are investing in core safeguards to better defend their ecosystems against evolving threats.

For a deeper dive into the 2016 Global State Information Security Survey findings go to pwc.com/gsiss or contact:

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