Total data protection: The case for pervasive encryption

Selected data based on IBM-sponsored Solitaire research

Breaches take a toll on businesses

- Lost customers: **78 percent** would not automatically return after a breach.[1]

- Lost profit: **USD $3.9 million** per breach on average.[2]

Encryption protects your data

Encryption is one of **the most effective defenses against data breaches**. Of the over 14 billion records breached since 2013, only 4 percent were encrypted.[3]

Encryption can **reduce the cost** of the average data breach by nearly $320K.[2]

Encrypting **every piece of data** is ideal. This is called "full encryption" or "pervasive encryption."

But full encryption is challenging

Solitaire found that **encryption takes a great deal of computing power** and that enterprises running x86 architectures typically selectively encrypt only their most sensitive data.[2] But even this level of encryption requires significant skills, resources and budget to implement and maintain. It also presents several challenges:

How do you prioritize which data to encrypt?

Identifying and classifying the right data to encrypt takes ongoing time and effort.

Where should encryption take place?

Should encryption occur within the operating system, at the database level, in application or on network? Wherever you encrypt, it will impact effectiveness, cost and complexity – and likely require application changes.

Who is responsible for encryption?

Data encryption can span the entire organization. Which business function owns enterprise-wide data protection and encryption strategy?

IBM Z® makes pervasive encryption a reality

Pervasive encryption is impractical to achieve with most x86 architectures.

Data based on IBM-sponsored Solitaire research

IBM Z empowers you to:

Optimize
security protection with over 8.5 times the protection of competing platforms.[4]

Lower
encryption cost with 93 percent less overall cost and 81 percent less effort than competing platforms.[4]

Encrypt
more quickly with encryption 18.4 times faster than alternatives.[4]

Mitigate
the need for threat response in 87.2 percent of incursions[4] and cut time to respond by 85.8 percent.[4]

Decrease
complexity by reducing threat surface by 92 percent and assailable topology from 2,423 to 196 assailable points.[4]

Data is your most vital resource. Pervasive encryption on IBM Z encrypts it more effectively than competing cybersecurity solutions.

Find out how you can make pervasive encryption the cornerstone of your data encryption strategy.

Learn more   Get started today

IBM

[1] Solitaire Interglobal Ltd, Scaling the Digital Mountain: https://www-01.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=65014265USEN

[2] Ponemon Institute 2018 Cost of Data Breach Study: https://www.ibm.com/security/data-breach

[3] Breach Level Index: https://www.breachlevelindex.com. Accessed 11 October 2018; written approval to use source received 10 October 2018.

[4] Solitaire Interglobal Ltd, Pervasive Encryption: A New Paradigm for Protection: https://www.ibm.com/account/reg/us-en/signup?formid=urx-17749