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Five Steps to Securing Your Company's "Crown Jewels"



InterConnect2015

The Premier Cloud & Mobile Conference

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Agenda



- Introduction
- Business Impact
- Security Landscape
- Critical Data
- Five Steps
- Q & A



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Introduction



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Speakers



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Global Data Security Competency Leader
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Shawn Hennessy

Global Security Strategist & Offering Manager
Data Security & Privacy
IBM Security Services

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Business Impact



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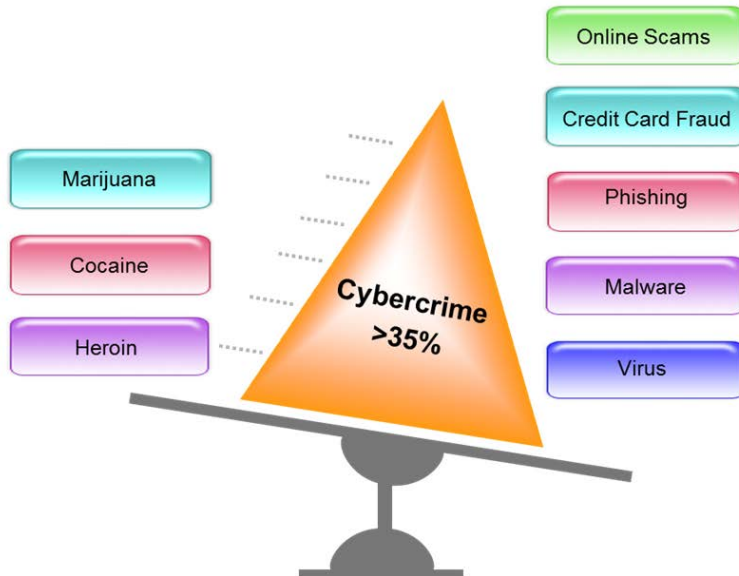
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Business Impact – Threats are global and local



Global Black Market on Drugs
\$288B

Cost of Global CyberCrime
\$388B



http://www.symantec.com/about/news/release/article.jsp?prid=20110907_02

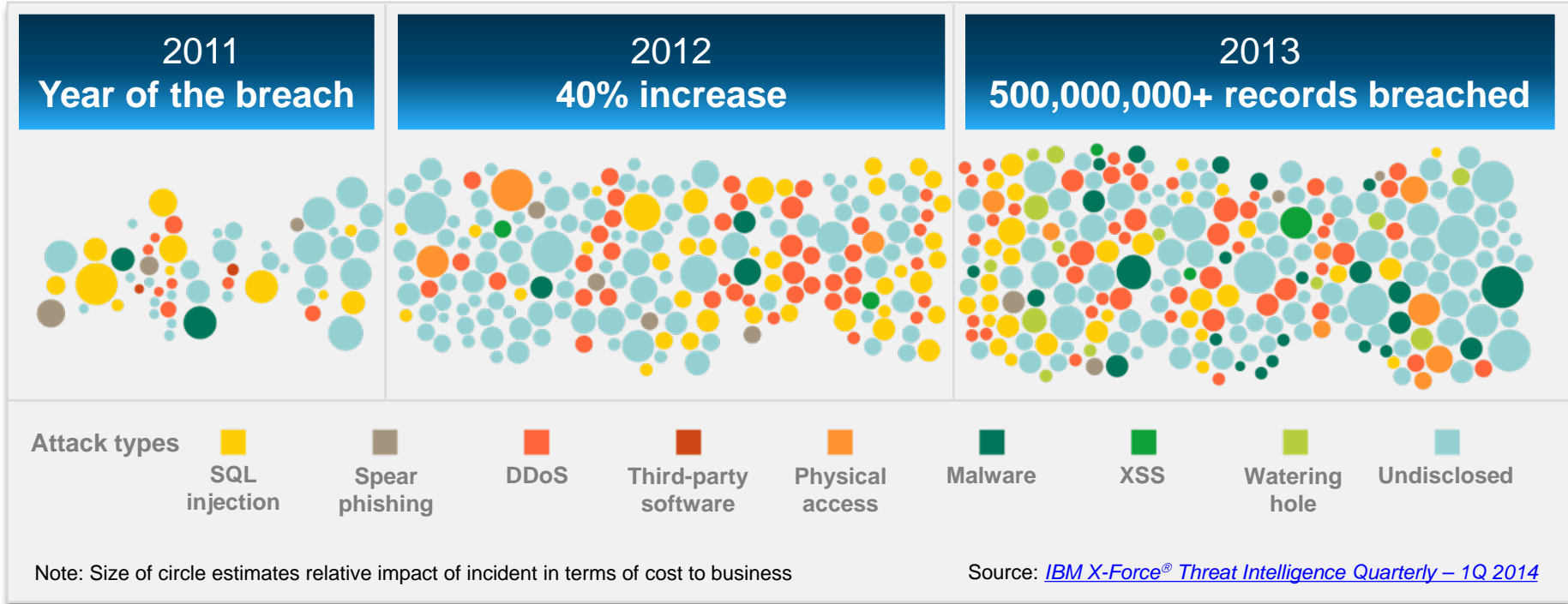
Health Insurer Hit by Big Data Breach

February 4, 2015

Anthem Inc. said hackers broke into a database containing names, birthdays, addresses and Social Security numbers for about 80 million of its customers and employees in what is likely to be the largest data breach disclosed by a health-care company.

source: <http://www.wsj.com/articles/SB20166486848661524114204580442211219540200>

Business Impact – Increased attacks every day



61% of organizations say **data theft and cybercrime** are their greatest threats

2012 IBM Global Reputational Risk & IT Study

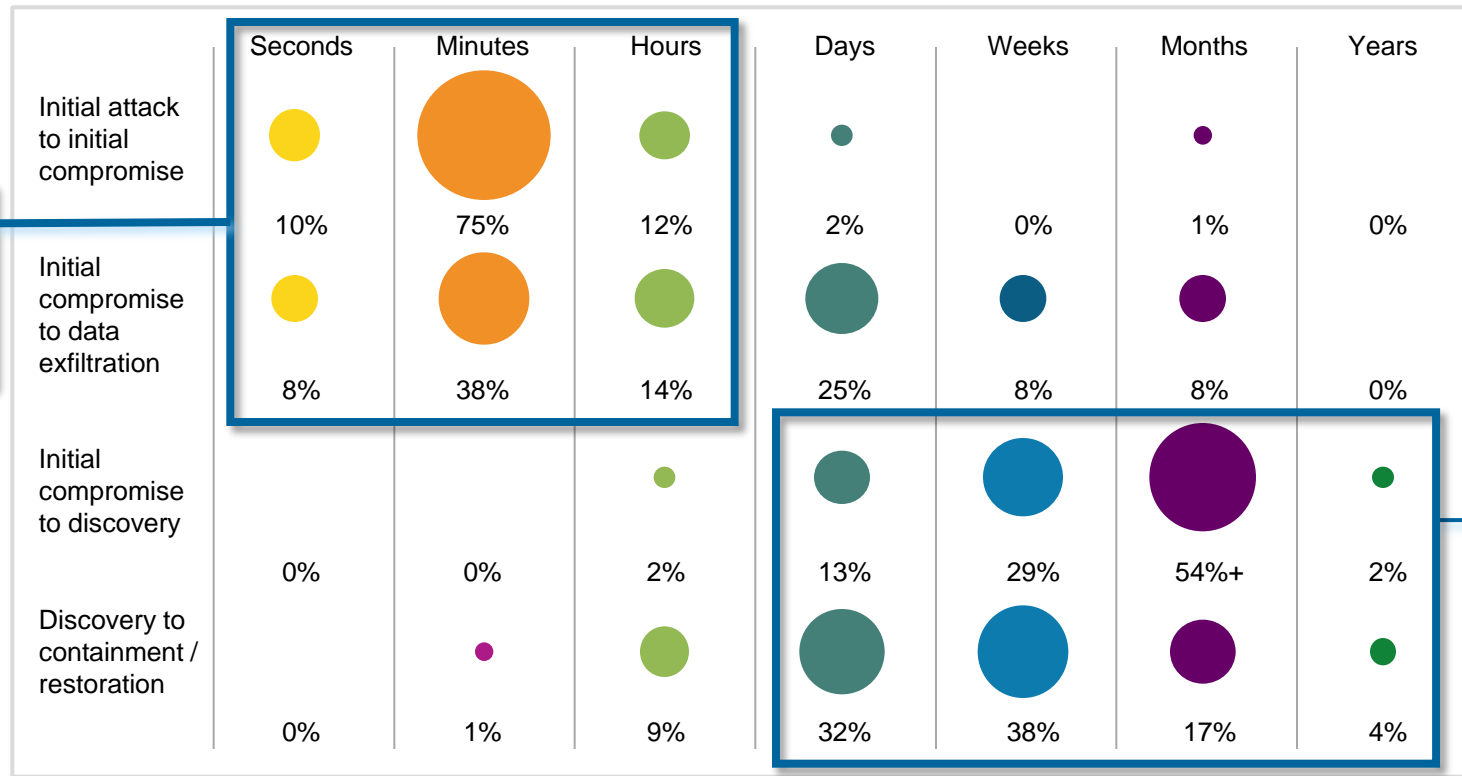
\$3.5M+ average cost of a **data breach**

2014 Cost of Data Breach, Ponemon Institute

Business Impact – Data exfiltration

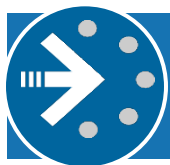


Time span of events by percent of breaches¹



It can take only minutes to get in...

...but months to discover and recover




98%

of compromises take days or more to discover, and 59% take weeks or more to contain¹

¹2012 Verizon Data Breach Investigations report, http://www.verizonenterprise.com/resources/reports/rp_data-breach-investigations-report-2012_en_xg.pdf

Business Impact - Ownership



CEO	CFO/COO	CIO	CHRO	CMO
Loss of market share and reputation Legal exposure	Audit failure Fines and criminal charges Financial loss	Loss of data confidentiality, integrity and/or availability	Violation of employee privacy	Loss of customer trust Loss of brand reputation

Your Board demands a strategy

Business Impact – Your Data, Your Value



Understand Data Asset Value

*Do we know what our data assets are?
Do we know what our data assets are worth?*

Controls Review

Do we have the appropriate controls in place to secure the data assets?

Mitigate Risks

Have risks to data assets been identified and appropriately addressed?

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Security Landscape



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Security Landscape – Myths



Your company is not infected. (It is.)



Whatever you've done is enough. (It is not.)



There's a silver bullet to protect you. (There isn't.)



You need to put your company in lock-down. (You don't.)

Security Landscape – Secure Critical Data



"Many rely on yesterday's security practices to combat today's threats"



Data – the new currency

- Upwards of **80% of cybercrime** acts are estimated to originate in some form of **organized activity**.
- Attackers are focused on **harvesting of personal and financial data, or other forms of corporate intellectual property** which can be sold on the black market.

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Critical Data



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Critical Data – Strategic Imperative

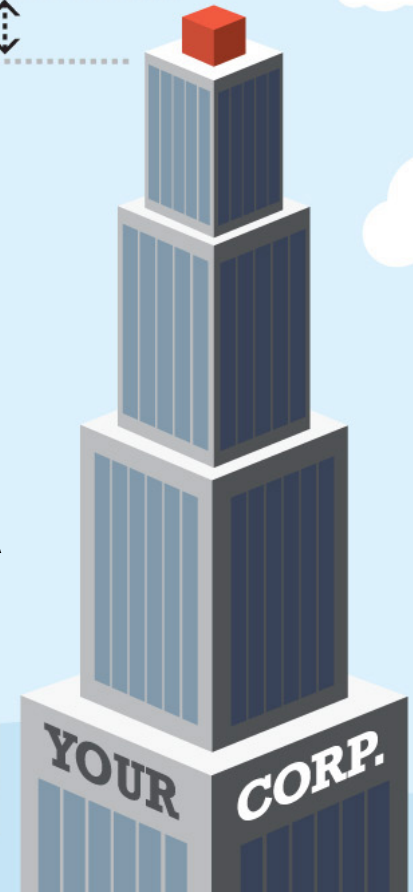


0.01% to 2.0%

(Your Critical Data)



- For most organizations, the most critical data – the “Crown Jewels” – amount to between 0.01% and 2.0% of total sensitive data¹
- The theft, misuse or corruption of this critical data can:
 - cripple operations
 - severely damage brand reputation
 - dramatically reduce shareholder value



Critical Data – Crown Jewels



Data Value ↑	Data Category		Examples			
	Enterprise Critical	Critical intellectual property		Top-secret plans & formulas		
	Executive	Acquisition /divestiture plans		Executive / board deliberations		
	Regulated	SPI & PII	Sarbanes-Oxley	HIPAA	ITAR	Quarterly results
	Business Strategic	External audit results		Alliances & joint venture, partner data		Business strategic plans
	Business Unit Critical	Design documents	R&D results	Customer records	Pricing data	Security data
	Operational	Project plans		Contracts	Salaries & benefits data	Accounts receivable
	Near-Public	List of partners		Revenue growth by segments	Market intelligence	Pay comparison data

Crown Jewels: 0.01-2.0%

Critical Data – Strategic Value

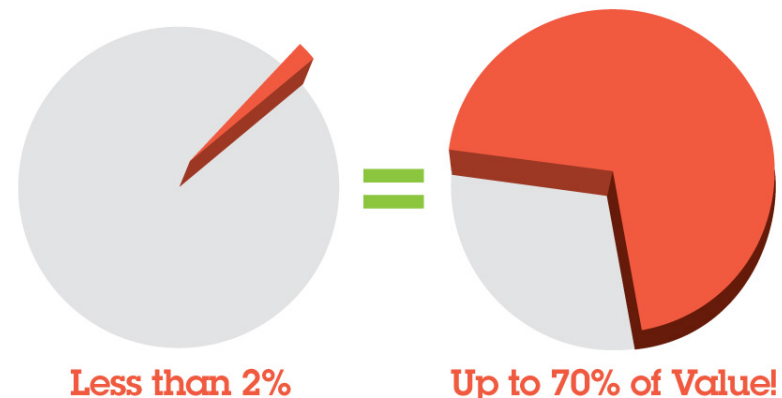


The most valuable data, intellectual property (IP) and trade secrets form the heart of an organization's identity and mission.

- Strategic product information – including new product designs, formulas and features, as well as changes, improvements and other updates to existing products
- Research and development (R&D)
- IT systems and applications, including novel processes, system architecture designs, source code and algorithms

Intellectual property and other enterprise-critical data represents an estimated 70% of the value of publicly traded corporations²

²U.S President's 2006 Economic Report to Congress



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Five Steps



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Five Steps – Protecting Critical Data



An iterative multi-phase approach to protect profitability, competitive position and reputation.



The theft, misuse or corruption of Critical Data can cripple operations, severely damage brand reputation, and dramatically reduce shareholder value.

Five key practices to protect critical data		
1	Define – your critical data assets	
2	Discover – critical data security environment	
3	Baseline – critical data security processes and controls	
4	Secure – critical data	
5	Monitor – with proper governance and metrics	

Five Steps – IBM's Methodology and Tools



IBM Critical Data Protection Program

DEFINE

DISCOVER

BASELINE

SECURE

MONITOR

What are the “crown jewels”?

- Determine data protection objectives
- Define “Crown Jewels”
- Develop organizational data model / taxonomy
- Obtain stakeholder consensus

Where are they? How are they used?

- Understand data lifecycle and environment
- Perform iterative discovery, analysis and classification

What is required to protect critical data?

- Establish baseline requirements
- Assess current data security processes and controls
- Determine gaps and identify solutions

How to plan, design, and implement?

- Plan and prioritize technical and business process transformations
- Design and implement solutions that protect critical data, enable access and align to business growth objectives

What to consider operationally?

- Determine metrics and process for monitoring, response, and communications
- Continue to evolve and adapt to changes
- Revalidate and improve program effectiveness

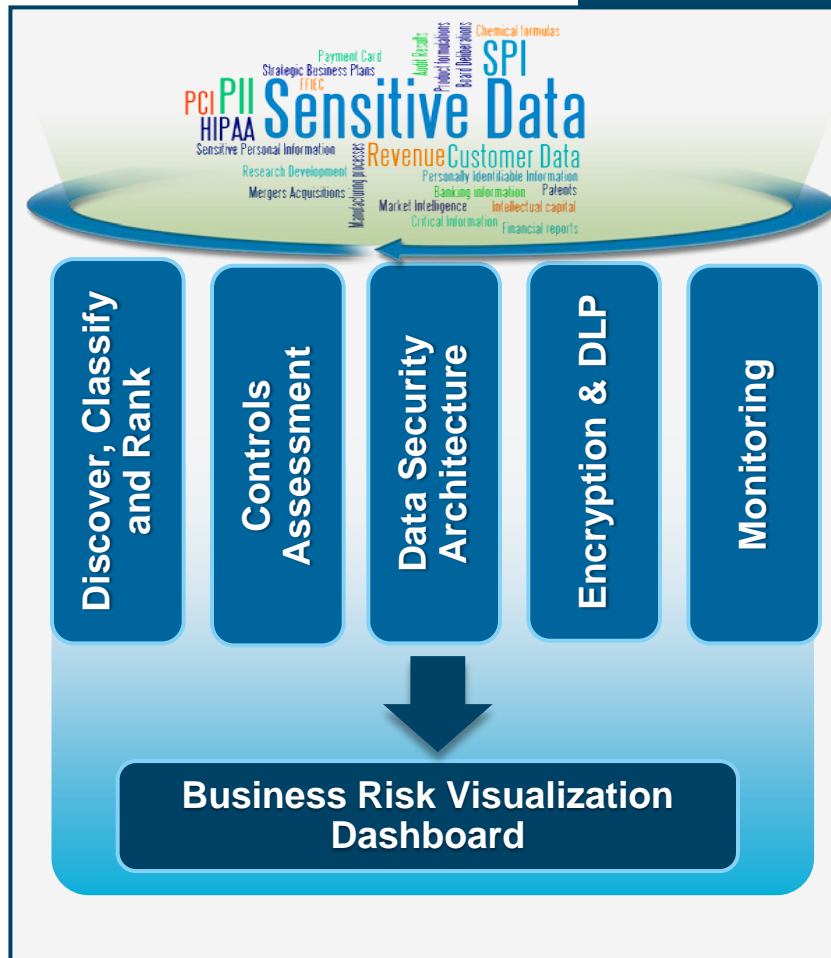
Supported by:

Robust Consulting Method | Industry-specific Data Models | Global Consulting Expertise | IBM Data Security Research
IBM Guardium, StoredIQ, DLP and other leading data protection technologies

Five Steps – Solutions



Focused on protecting the most critical digital assets



- **Discover, Classify and Rank** identify the most critical digital assets – the organization’s “crown jewels” – in structured and unstructured repositories; repeat scans
- **Controls Assessment** identify and rank threats, review access privileges, and controls that are in place
- **Data Security Architecture** create a data security strategy and architecture for both structured and unstructured environments
- **Encryption & DLP** employ encryption and DLP technologies to protect the most valuable assets, the “crown jewels”
- **Monitoring** review monitoring metrics to ensure continued protection of “crown jewels” and adequacy of controls due to evolving threats
- **Business Risk Visualization Dashboard** to provide visual representation of risks and potential exposure of Critical Data assets

Closing



- Business Impact
- Security Landscape
- Critical Data
- Five Steps
- Q & A



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