IBM Security

Hungarian-Norwegian Chamber of Commerce

Healthcare Security Strategy

INTEGRATED SECURITY FOR A NEW ERA

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WW Security Industry Leader, Healthcare & Life Sciences

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IBM

AGENDA

- Healthcare Security: Status, Cyber Attacks, Maturity
- Compliance & Regulations
- IBM's Security POV
- How do we start this journey together ...

Cybersecurity is a universal challenge

What our customers are facing…

GDPR fines can cost
billions
for large global companies

By 2022, there will be
1.8 million
unfulfilled cybersecurity positions

Organizations are using
too many
tools from too many vendors

Healthcare Security Pain Points

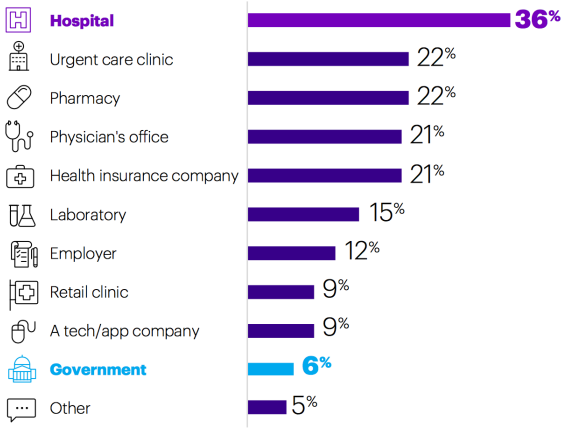
- **Data sharing is the foundation for digital transformation.. Security is a critical enabler**
  - Data no longer behind the data center walls- healthcare requires data be pervasive and widely shared.
  - We need to strike a balance between security and ease of access

- **Security Trends and Challenges:**
  - Ransomware attacks
  - Historical underinvestment (Security spend 3% of IT budget vs. 10% in all other industries)
  - Dependencies on business associates and 3rd parties
  - Medical devices that can't be patched (FDA requirement)
  - Limited access to technical resources

Data walks… We need to follow and protect

- 1 in 4 consumers have had PHI stolen
- 25% Changed Healthcare Providers
- 21% Changed Payers / Insurance

FIGURE 4. Digital healthcare data breaches are occurring across a variety of locations.



External attackers are holding Healthcare Organizations hostage while insiders are exposing patient data to the outside

INTERNALLY…

55% of healthcare providers view NEGLIGENT INSIDERS as a significant future threat

34% of healthcare providers view MALICIOUS ATTACKS as a significant future threat

EXTERNALLY…

69% of healthcare providers view RANSOMWARE as a significant future threat

>50% of hospitals have been HIT WITH RANSOMWARE over the last 12 months

2017 HIMSS Cybersecurity Survey

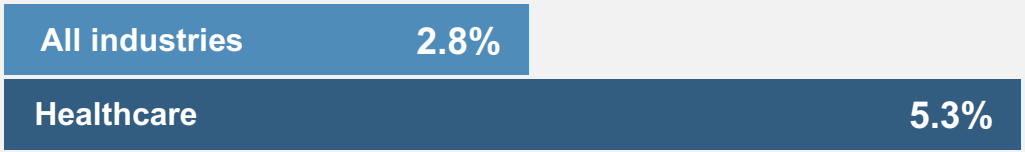
No industry has more costly data breaches than Healthcare

AVERAGE TOTAL COST of a data breach

$4 MILLION

AVERAGE COST of a lost or stolen record

CHURN RATE resulting from a data breach



"2016 Cost of Data Breach Study, Global Analysis," Ponemon Institute, June 2016.

Ottawa Hospital hit with ransomware, information on four computers locked down, March 2016

Cyberattacks: The next healthcare Epidemic

Forbes published data from the Office for Civil Rights (a branch under the U.S. Department of Health and Human Services), showing that medical information of nearly 30% of the U.S. population were at risk due to Anthem's breach, which accounted for 78M penetrated records in February 2015.

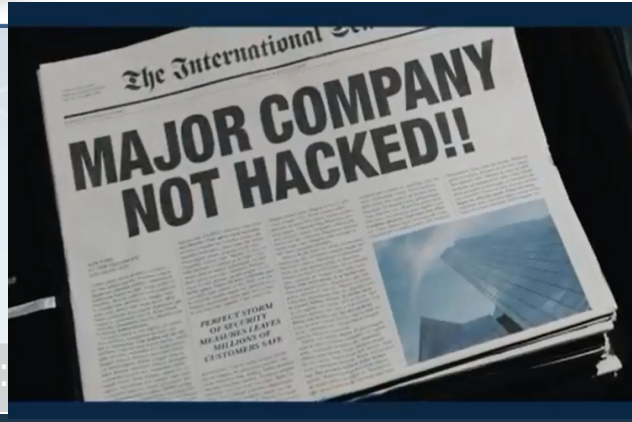
Hollywood hospital pays $17,000 in bitco… …kers; FBI investigating

Feb 5, 2016, Hollywood Presb… ransomware att… files … portion of

NHS tops the list for serious data breaches in 2017: Breaches ranged from losing hardware like a USB key or printed copies of patient information for example, to uploading sensitive information to websites, to technical failures and hacking.

BREAKING: … Individuals … …nects 3.7M

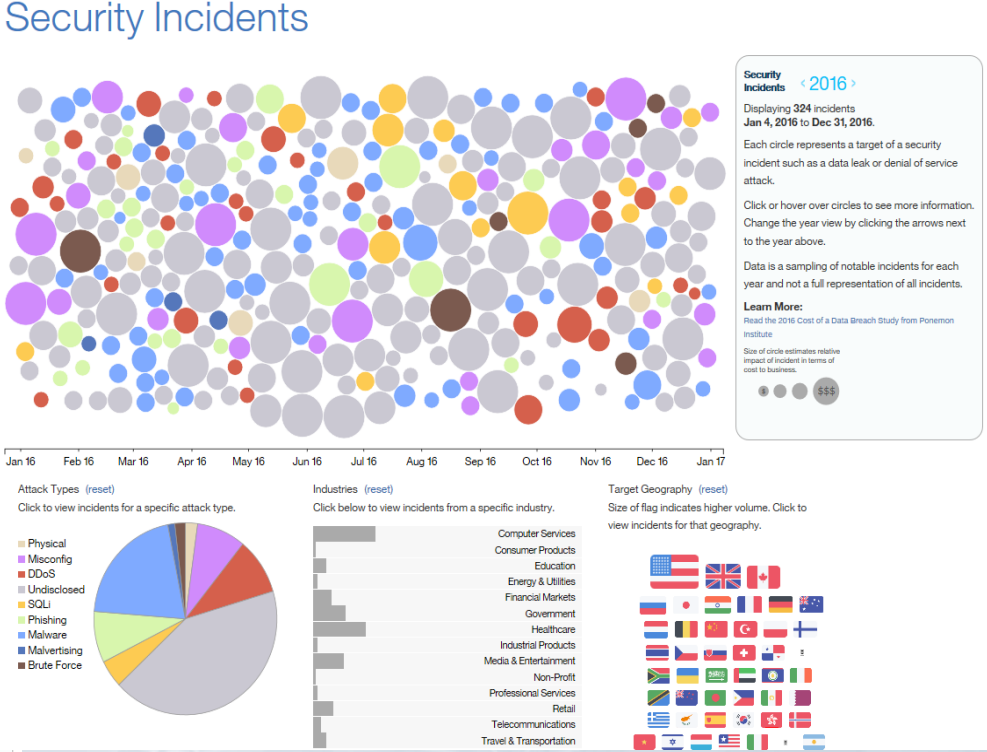
…enix-based Banner Health, one of the largest healthcare systems in the U.S., announced on August 3, 2016 that it is notifying approximately 3.7M individuals about a breach in which cyber attackers gained unauthorized access to computer systems that process payment card data at certain Banner locations.



IBM's Publications on Healthcare Security:

Live XF Interactive Security Incidents

Malware represents **20%** across all industries, it is **52%** in Healthcare



Healthcare Organizations are becoming more data-centric and it is important to understand their top security drivers:

1. Regulatory and compliance alignment
2. Standard security frameworks, detection capabilities and response controls
3. Rigorous monitoring of regulatory changes
4. Access management
5. Network security
6. Data protection and encryption
7. Application security
8. Visibility and intelligence
9. Workload-centric capabilities
10. Cloud-agnostic managed security services

Regulators expect the same level of control in a cloud environment

HITRUST

APPA
Asia Pacific Privacy Authorities

PIPEDA
Personal Information Protection and Electronic Documents Act

EU General Data Protection Regulation
GDPR

Regulators require Healthcare Organizations to review the following before deciding to use cloud services:

- Location of data and the related legal jurisdiction
- Identity and access management
- Auditability
- Availability
- Data classification
- Encryption management
- Security incident management
- Business continuity

IBM SECURITY IN THE HEALTHCARE INDUSTRY

IBM Security: Our POV

How do you evolve your security program for the future?

LAYERED DEFENSES → **INTELLIGENCE and INTEGRATION** → **COGNITIVE, CLOUD, and COLLABORATION**

The future of security is

Cognitive

What if you could accelerate what analysts do each day?

Investigate threats faster

Automatically triage incidents with the help of artificial intelligence

Be more accurate

Correctly identify evolving threats, with a vast corpus of knowledge

Interpret unstructured data

Draw from millions of security documents

The future of security is **Cloud**

Can you confidently say yes to digital transformation?

Accelerate innovation

Access one of the largest cloud-based security portfolios in the world

Protect multiple clouds

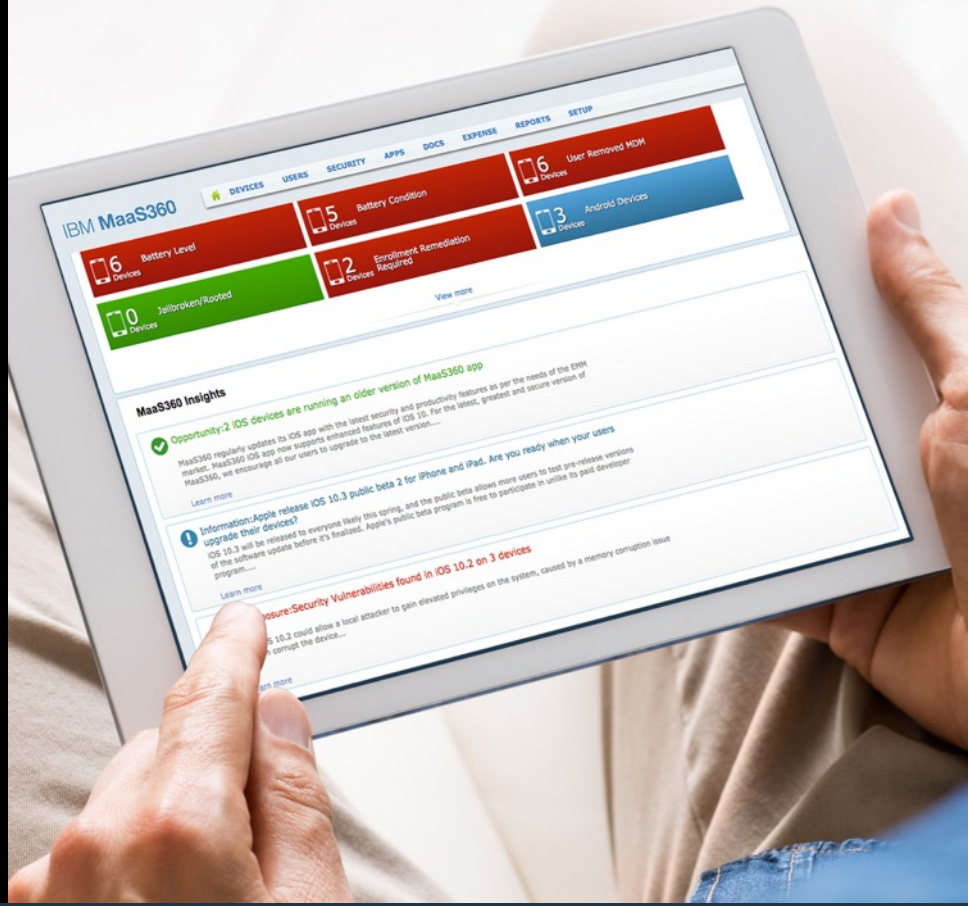
Use 25+ hybrid cloud security offerings, built for the enterprise

Use a proven platform

270M+ endpoints connected to our cloud

IBM MaaS360
IBM QRadar on Cloud
IBM Trusteer
IBM AppSec on Cloud

IBM Security App Exchange
IBM X-Force Exchange
IBM IDaaS
Data Security on Cloud



The future of security is

Collaboration

Are you part of the bigger picture?

Orchestrate responses

Respond to threats in minutes instead of hours with IBM Resilient

Share knowledge

Interact with 41K+ X-Force Exchange users and 800+ TB of threat intelligence

Tailor your defenses

Customize security with 100+ apps on the IBM Security App Exchange

Security Offerings 2018

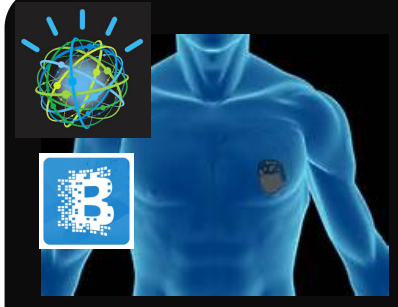
Immune System | Incident Response | Ransomware | Watson for Cyber Security

Secure Medical Imaging

Secure EMR

(Epic, Cerner, Allscripts, Meditech)

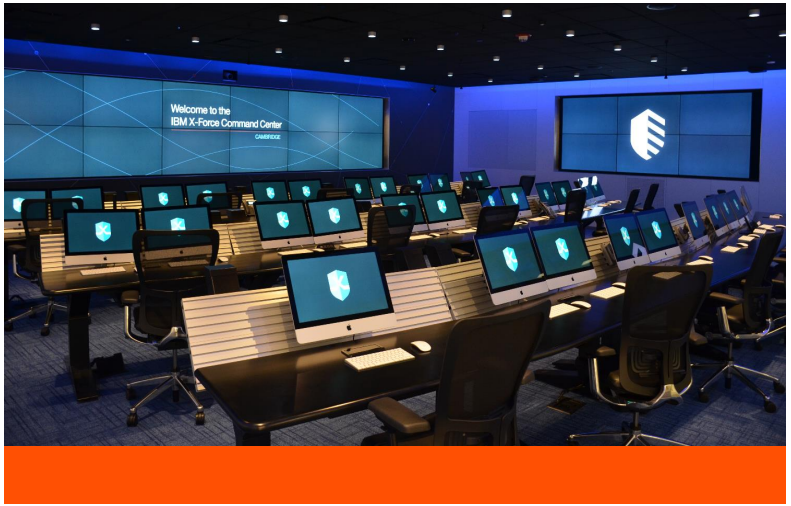
Compliance Services



- Watson IoT
- Blockchain
- Med Devices

X-Force Command Center Experience--Cambridge

- **What is the X-Force Command Center?**
  It is a state-of-the-art facility that immerses clients/potential clients in **a simulated Security Operations Center** (SOC) using tactics and protocols designed to anticipate and defend against current and future cyber threats.
  It will provide critical cyber security-related crisis leadership skills in **a safe "live fire" environment** where participants can experience the effects of live malware. The participants will operate real tools, investigate active infections, and respond to internal and external cyber security events.



- ***Who is the audience?***
  C-level execs, board members or security professionals.

- ***Is there prep work required before the visit?***
  No prep work is required. Each participant will have step by step instructions that they will follow to complete the scenario

- ***How long is the experience?***
  Minimum of 6 hours

- ***What are the roles the audience will be playing?***
  Security Operations Center roles. For example SOC Tier 1 Analyst, SOC Lead Analyst, SOC Manager, etc. Minimum attendee requirement is 9.

- **What is the take-away?**
  Participants will return to their organizations with a greater understanding of security best practices, the importance of implementing a security strategy, and the leadership skills.

A global leader in enterprise security

IBM Security

- **#1** fastest growing of the Top 5 security vendors*
- **8,000+** employees
- **17,500+** customers
- **133** countries
- **3,500+** security patents
- **20** acquisitions since 2002

* According to 2015 Gartner Market Share

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THANK YOU

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