



# eHEALTH INITIATIVE

Real Solutions. Better Health.

## **Building Operational Maturity to Protect Patient Data**

**July 15, 2015  
2:00 – 3:00 pm ET**

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# About eHealth Initiative

- Since 2001, eHealth Initiative is the only national, non-partisan group that represents all the stakeholders in healthcare.
- Mission to promote use of information and technology in healthcare to improve quality, safety and efficiency.
- eHealth Initiative focuses its research, education and advocacy efforts in three areas:
  - Business and clinical motivators
  - Interoperability
  - Data access and use



# What do “Shark Tank”, Top Health IT Executives, and Innovative Ideas Have In Common?

You Can Experience them all at  
**eHealth's iTHRIVE 2015**

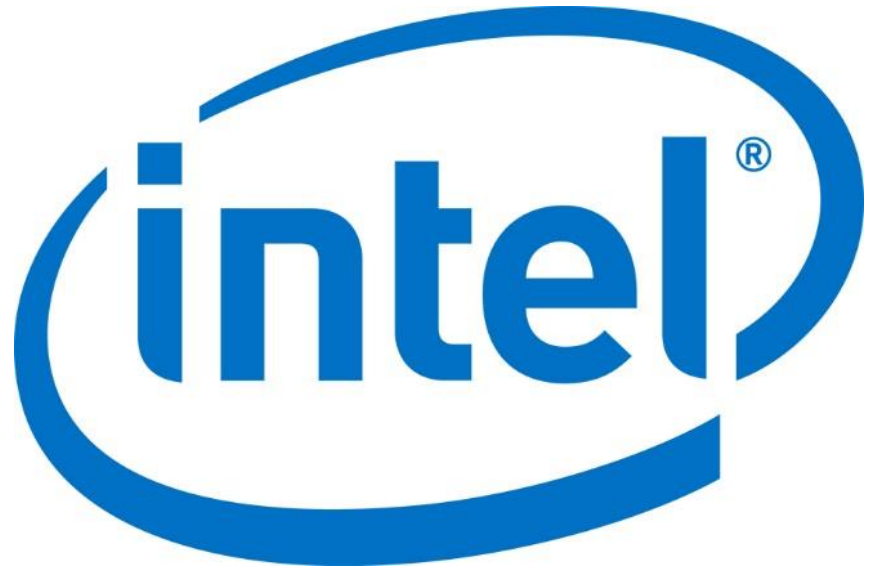
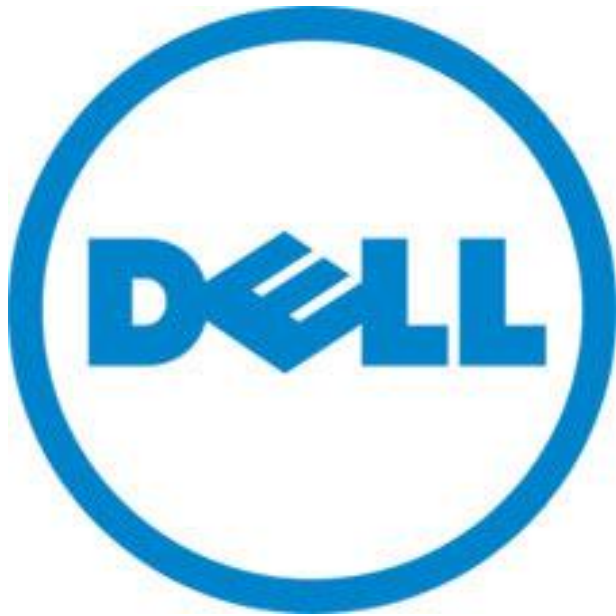
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# Agenda

**2:00 – 2:05 PM Welcome and Introductions**

**2:05 – 2:20 PM Presentations**

- Jigar Kadakia, Chief Information Security & Privacy Officer, Partners Healthcare
- Tim Brown, Executive Director for Security, Dell Software Group
- Ben Cody, Vice President, Intel Security Group

**2:20 – 2:50 PM Panel Discussion**

- Moderated by Mark Blatt, MD, Worldwide Medical Director, Intel Corporation

**2:50 – 3:00 PM Audience Q&A**



# Presenters



**Timothy Brown**

Dell Fellow and Executive  
Director for Security

Dell Software Group



**Ben Cody**

Security Group Vice  
President

McAfee Data Loss  
Prevention



**Jigar Kadakia**

Chief Information Security &  
Privacy Officer

Partners Healthcare System



## The current healthcare security landscape

Healthcare industry data  
breach losses:

**\$7** Billion

per year

The average  
economic impact  
of a data breach:

**\$2.4M**

**30 million+**

Patients affected by breaches from  
2009-2014

**Only 40%**

of organizations can prevent or  
quickly detect all patient data loss or  
theft

**< 48%**

of organizations complete a security  
risk assessment

### Top 3 causes of data breaches

**Devices:**

Lost or stolen devices

**Business Associates:**

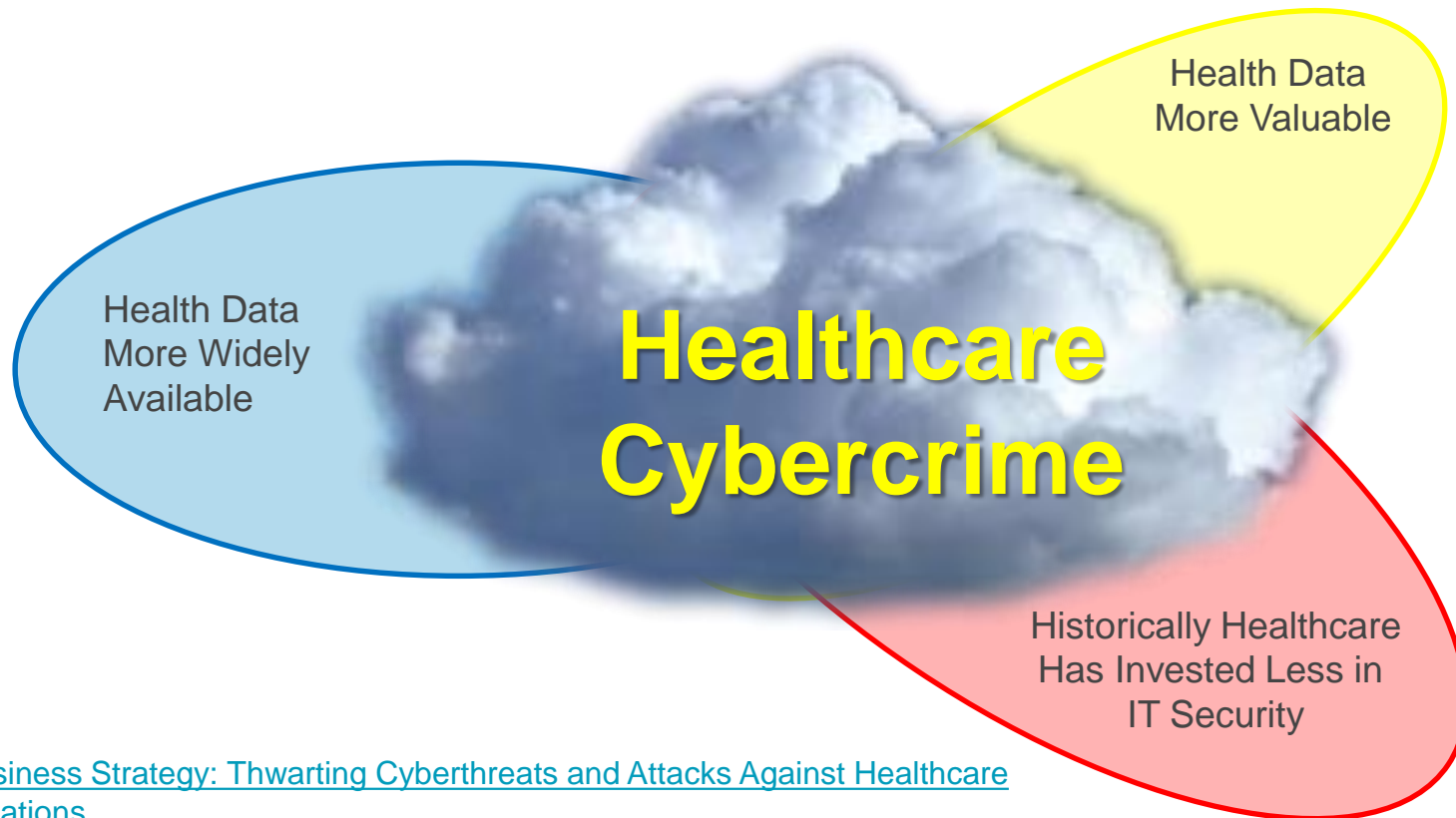
Third party data loss

**The Human Element:**

Employee mistakes



# Healthcare Cybercrime – A Perfect Storm



## Sources:

- [IDC Business Strategy: Thwarting Cyberthreats and Attacks Against Healthcare Organizations](#)
- [Reuters: FBI warns healthcare sector vulnerable to cyber attacks](#)

# Common Types of Healthcare Breach Risks

## 1. **Loss / Theft of Mobile Device**

Healthcare worker mobile device containing sensitive patient data in electronic form gets lost or stolen

## 2. **Workaround**

Healthcare worker shares sensitive patient data with co-worker using personal mobile device and third party app out of compliance with policy leading to unauthorized access

## 3. **Remote Cybercriminal Attack**

Remote cybercriminal group attacks a healthcare organization with the goal of stealing all sensitive patient data covertly from the master database



# Breaches Maturity Model

## None

No security controls

## Baseline

- + Endpoint device encryption with HW acceleration
- + Mobile device management
- + Penetration testing / vulnerability scanning
- + DLP discovery
- + Device control
- + Anti-malware
- + Single factor access control
- + User awareness training
- + Email and web gateways

## Enhanced

- + Client SSD with encryption
- + Endpoint DLP
- + NDLP monitoring & capture
- + Anti-theft: remote locate, lock, wipe
- + Multi-factor authentication with timeout
- + Secure remote administration, HW enabled
- + Policy based encryption for files and folders
- + Server / database / backup encryption, HW accelerated

## Advanced

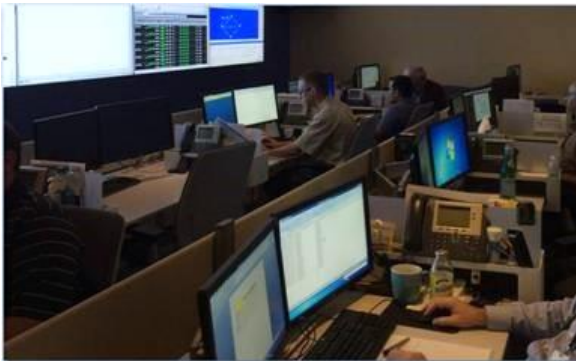
- + Server SSD with encryption
- + NDLP prevention
- + Database activity monitoring
- + Digital forensics capabilities
- + SIEM
- + Threat intelligence exchange / collaboration
- + MFA with walk-away lock

Improved Breach Security, Usability, Cost, Operations

# Partners = Integrated Healthcare Network



# Partners' Security Operations Center Strategy



Network Forensics



Incident Response



Identity Management



Data Aggregation



Anomalous Behavior  
Detection

# Polling Question

Does this Security Breach Maturity Model have value for your organization?

- a. We would never use a maturity model to guide our decision making.
- b. This security model can provide me valuable insights into my organization's readiness.
- c. We have our own security model that does not map to the one shown, so it is of limited value.
- d. This security model has value and we would like to learn more. Please contact us.



## Moving toward security maturity

**Security and privacy priorities for healthcare organizations**

**The healthcare security maturity model – focus and benefits**

**Applying the maturity model**

**Advancing and improving the model**

## Increasing security investment, avoiding pitfalls, and addressing cloud security

**Gaining support for increased security investment**

**Common pitfalls of a data protection program**

**Addressing cloud security with the maturity model**



# Q&A

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