

# Trends in Healthcare IT: Peace of Mind with Proactive Protection

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# Development Update and Roadmap

## Healthcare IT Trends

# WHAT HAVE CLOUDWAVE AND MEDITECH BEEN UP TO?

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- MEDITECH Always-On/Zero Downtime Patching
    - Combination of MS Clusters, BG Swing Space, Load Balancing
    - Available for Expanse Customers.
    - Beta Program today
  - Public Cloud Use Cases
  - Nutanix
  - Pure Storage
  - Hyper-V
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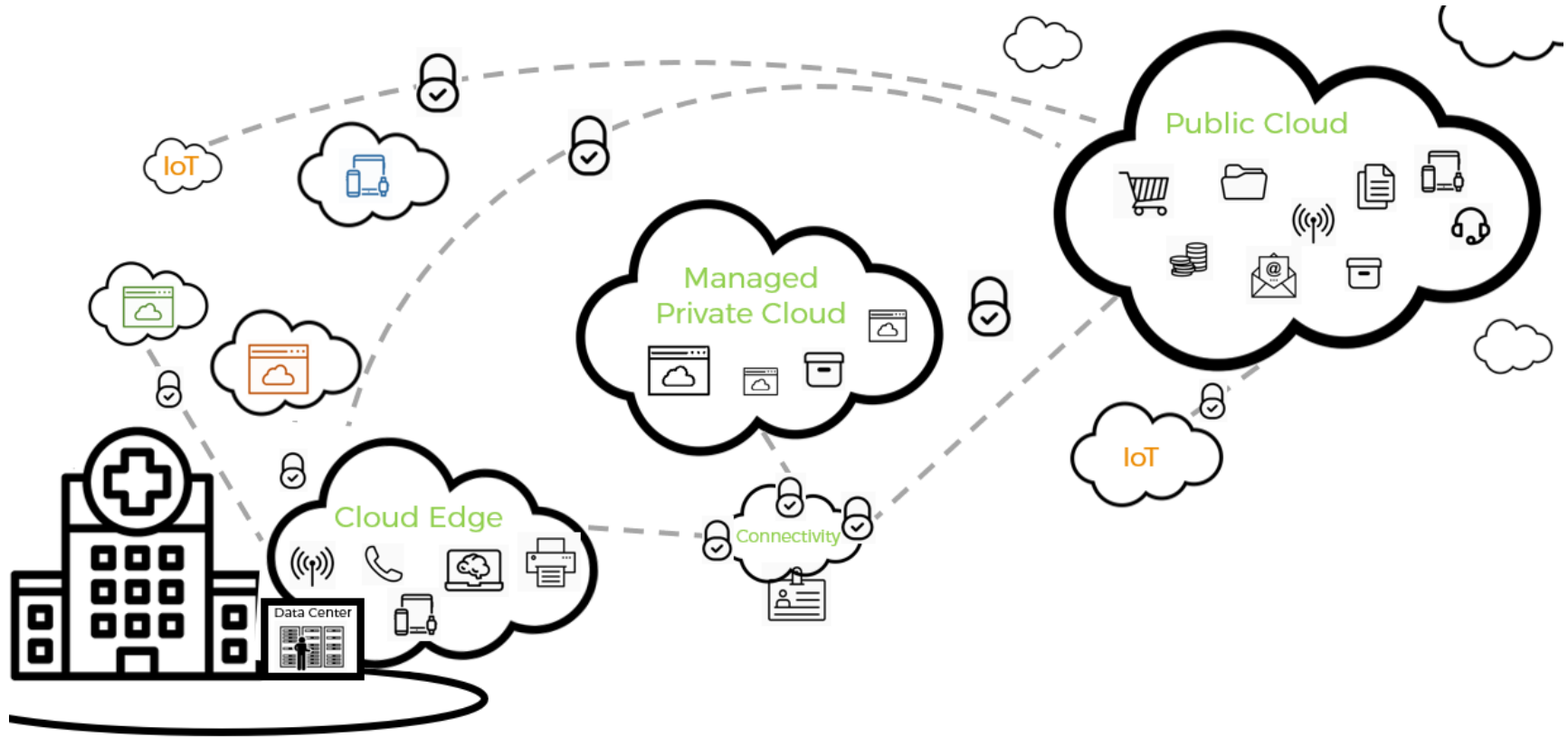


## TECHNOLOGY TRENDS IN HEALTHCARE

- Cloud, Cloud, Cloud!
  - What does it mean?
- Hyper-Converged Technologies
  - Linear scaling
  - Easy to manage
  - Simplified management of compute and storage
- All Flash Storage – NVMe
  - Use Cases in HealthCare
  - As Mike Malone mentioned with Surveillance and Real time analytics – speed of backend storage becomes more critical.
- Hybrid Cloud Security
  - Why its Important



# All Cloud is Multicloud



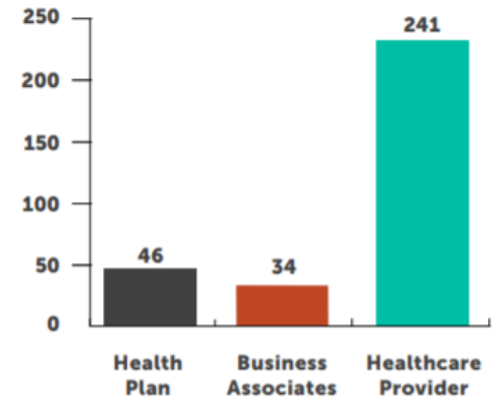
## HEALTHCARE SECURITY THREATS – CURRENT TRENDS

- Security threats have continued to intensify and evolve
- More than 300 healthcare organizations reported a breach of 500+ records and have found themselves listed on the U.S. Department of Health and Human Services, Office for Civil Rights (OCR)<sup>1</sup> reporting site
- Healthcare provider organizations were the most targeted and successfully breached entities for the 10th year in a row.<sup>2</sup>
- Hacking was the leading cause of security breaches in 2018

<sup>1</sup> Source:

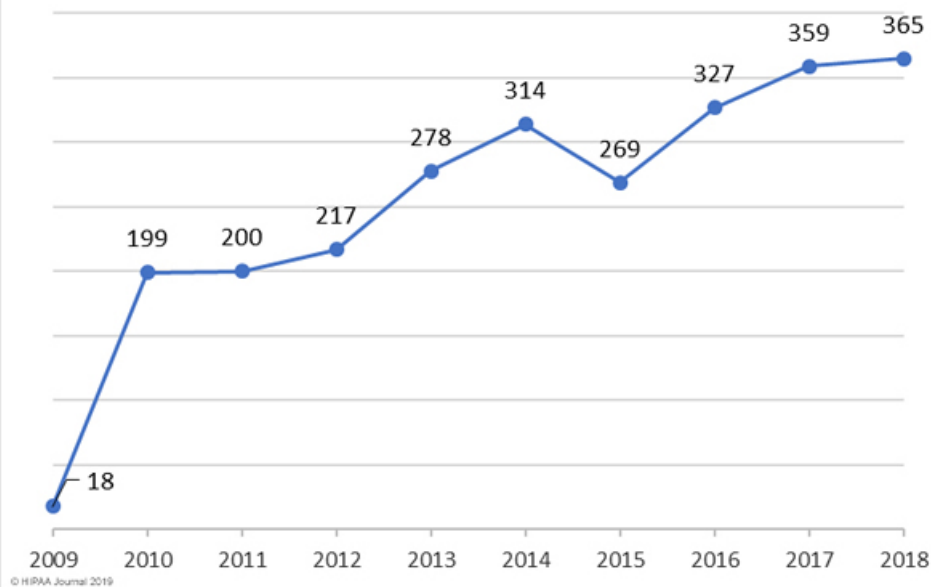
<https://www.hhs.gov/ocr/foia/breach/breach-report>  
<sup>2</sup> Source: GFS: Department of Health and Human Services Office for Civil Rights

Number of Entities  
Affected YTD 2018 <sup>2</sup>

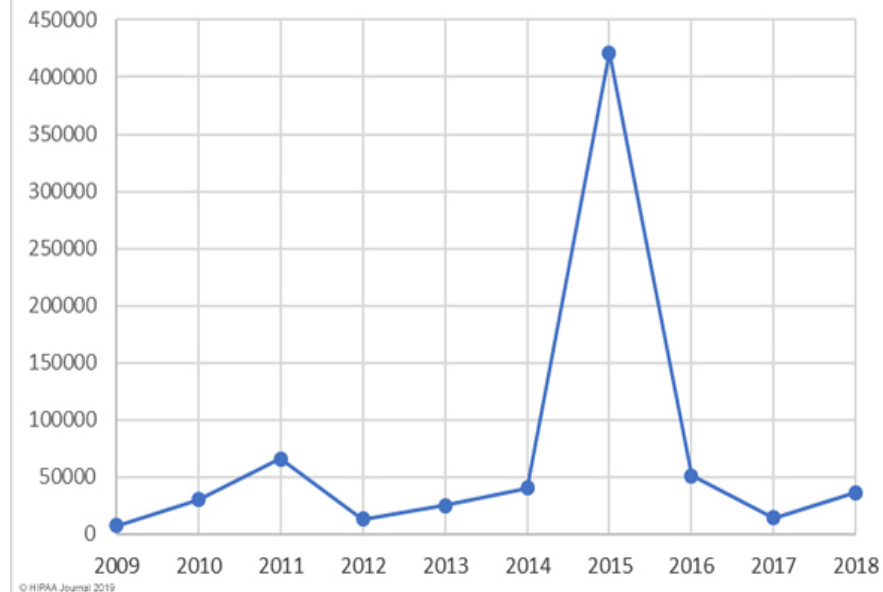


## THE NUMBERS IN FOCUS

Number of Reported Data Breaches (2009-2018)



Average Data Breach Size (2009-2018)

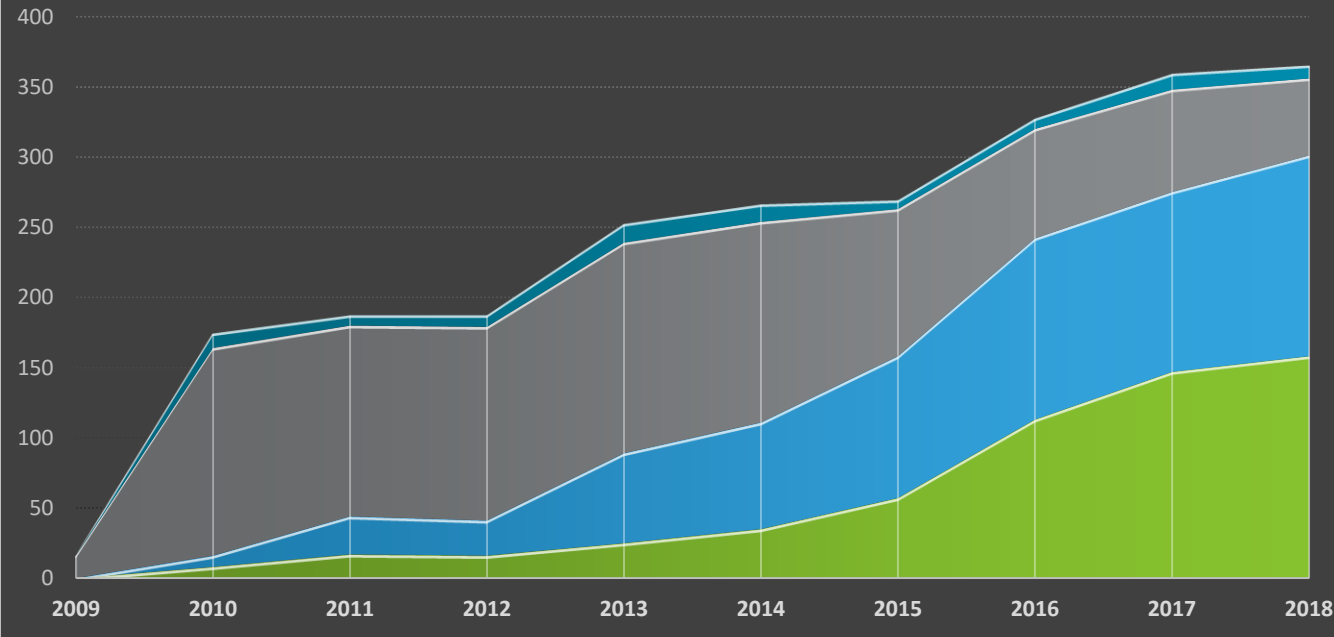


Source: <https://www.hipaajournal.com/healthcare-data-breach-statistics/>

## WHERE THEY COME FROM

### Source of Data Breaches 2009-2018

■ Hacking/IT Incident   ■ Unauthorized Access/Disclosure   ■ Theft/Loss Incidents   ■ Improper Disposal Incidents

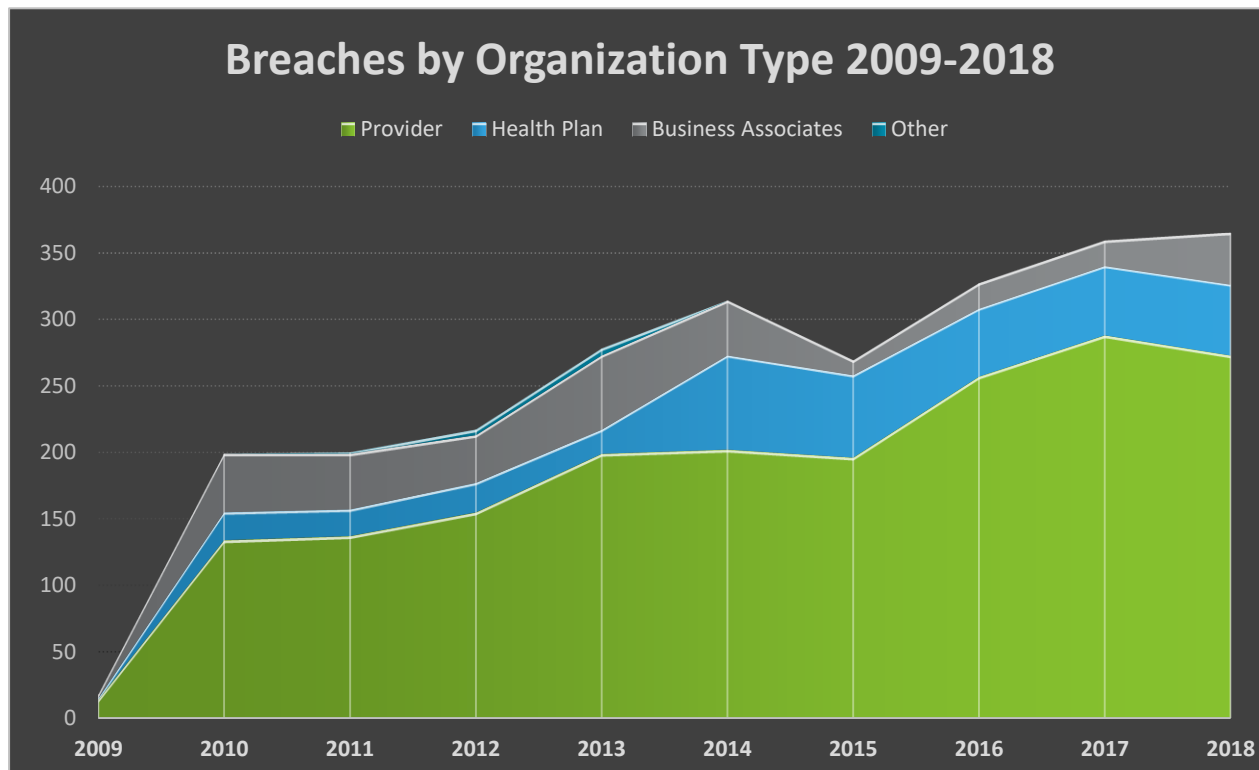


- Reporting Improves Yearly
- Sensors Improve Yearly
- Tracking and Reporting have improved with enforcement
- Handling process has improved over time

Source: <https://www.hipaajournal.com/healthcare-data-breach-statistics/>



## WHO COMMITS (ENDURES) THEM



Source: <https://www.hipaajournal.com/healthcare-data-breach-statistics/>

## FOLLOW THE MONEY

“Social Security numbers sell for \$1, and credit card info goes for up to \$110. But Experian reports full medical records can command up to \$1,000 because they're an identity thief's dream: date of birth, place of birth, credit card details, Social Security number, address, and emails.”

- Gary Miliefsky, CyberDefense Expert



Source: CBS Evening News, May 4, 2019

Some quick math:

365 Reported Breaches

36,265 average records/breach

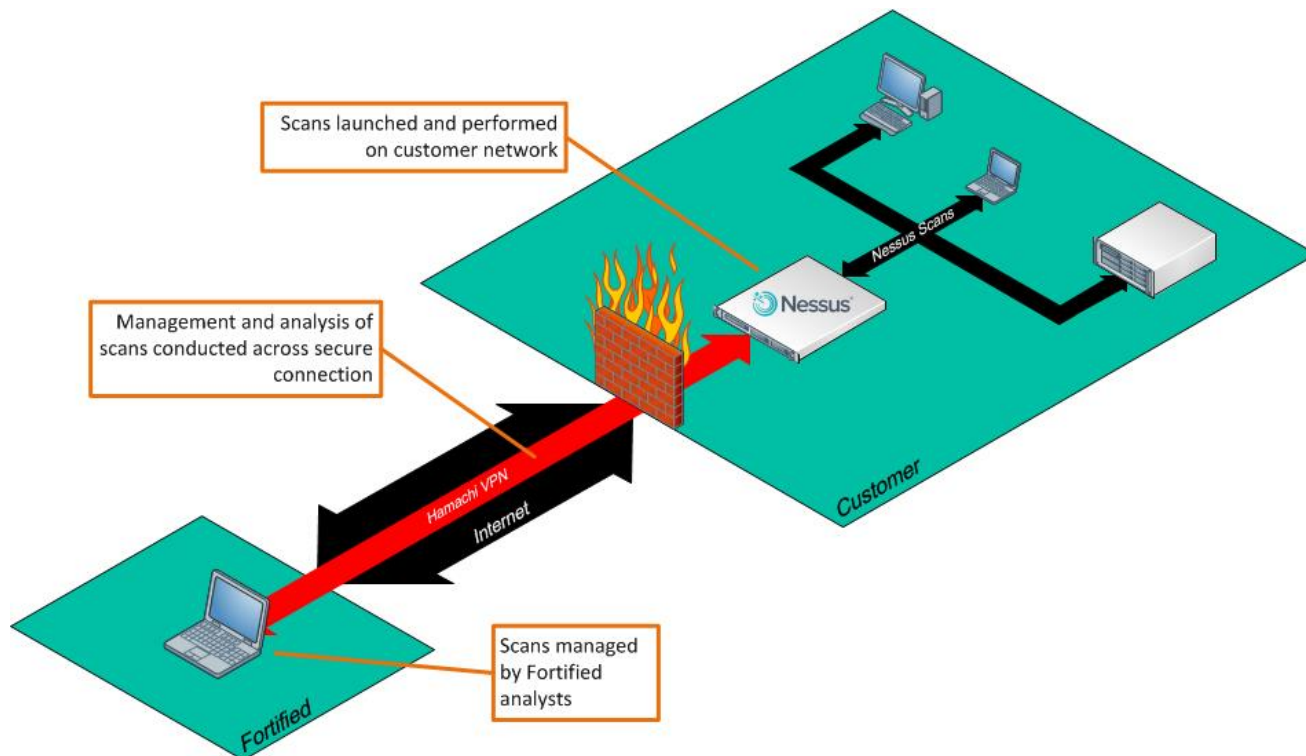
Market Value of data in an  
average breach = \$36,265,000

Market Value of data in all  
reported breaches = \$13.2 Bn

### Hybrid Cloud Security

- VTM (Vulnerability Threat Management)
- SIEM (Security Information Event Management)
  - Domain Controllers
  - Firewalls
  - Anti-Virus Management Console
  - Web Content Gateway
  - Anti-Spam Filter
  - IPS/IDS Appliance
  - ETC.

## VULNERABILITY THREAT MANAGEMENT (VTM)

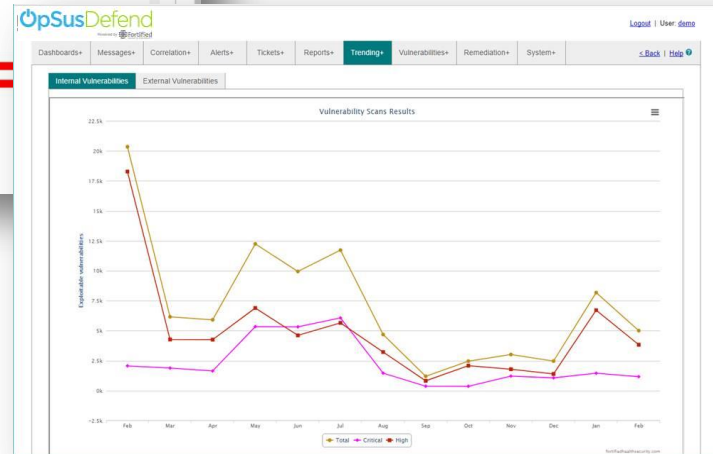


# VULNERABILITY THREAT MANAGEMENT (VTM)

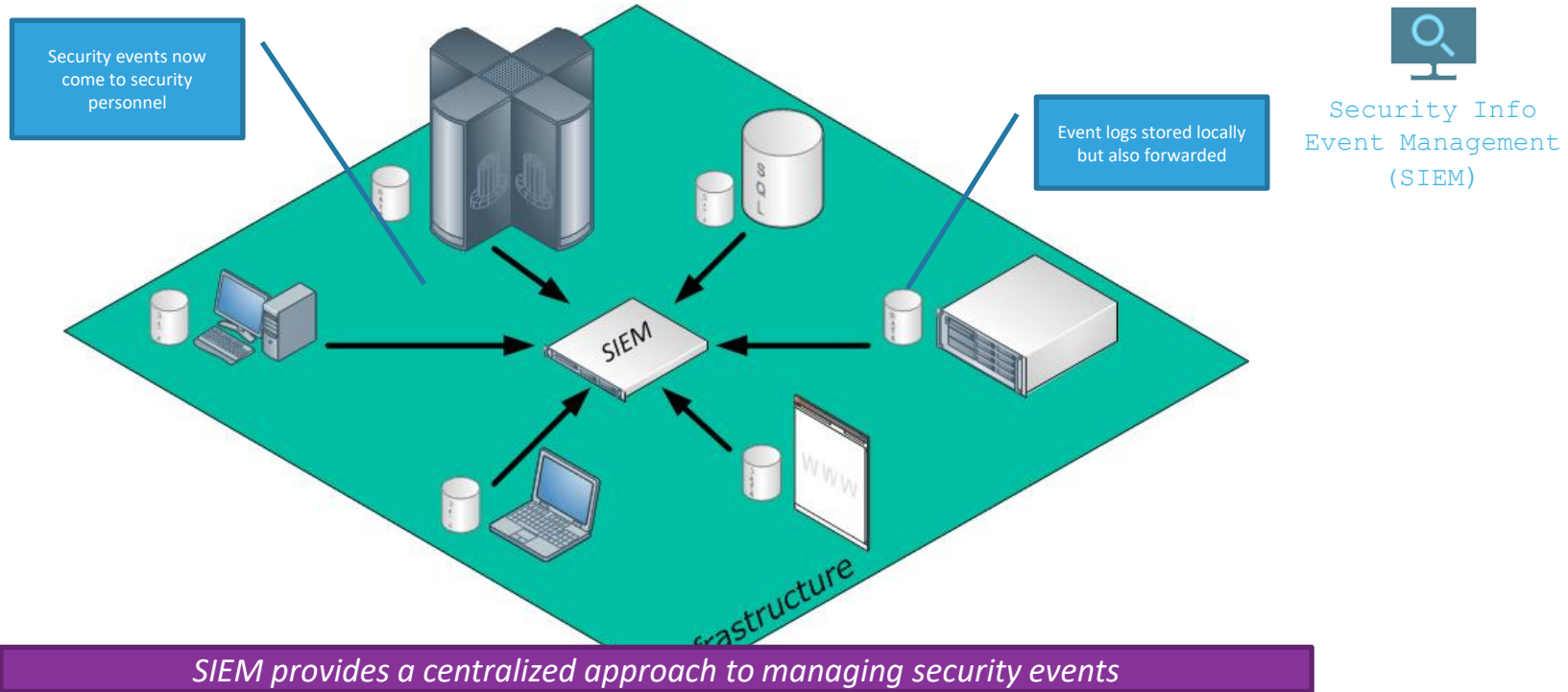


Average decrease in vulnerabilities by 50% in the first two months, if recommendations are followed

- 24/7 Dashboard Access
- Monthly Trending Metrics



## SECURITY INFORMATION & EVENT MANAGEMENT (SIEM)



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## Managed Service

- 24/7 continuous log monitoring
- Utilizes custom-built rules to correlate logs and create alerts
- Specialized reporting modules, macros, and taxonomies
- Security analysts are alerted when a rule is triggered, they analyze the event, and notify clients within 10 minutes if malicious action is occurring



## Value to your organization

- + Central repository for all security events to be logged, analyzed and managed
- + Allows client to offload SIEM management freeing up resources
- + Continuous monitoring, analyzation and alerting of security events
- + Monthly trend reporting metrics of events seen

# Current Customer Challenges



## CUSTOMER CHALLENGES

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What causes your headaches?

- Security?
- DR?
- Patching/Downtime?
- Performance?



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Thank You!

Questions  
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## ADDITIONAL RESOURCES

- CLOUDWAVE BLOG “SUSTAINING HEALTHCARE IT”
  - <http://www.gocloudwave.com/blog/>
- **CONTACT INFORMATION**
  - Mike Donahue –  
[mwdonahue@gocloudwave.com](mailto:mwdonahue@gocloudwave.com)
  - Rick Corwon –  
[rcorwon@gocloudwave.com](mailto:rcorwon@gocloudwave.com)