

Cybersecurity Roundtable

HIMSS IOWA Chapter

2020 Cybersecurity Challenges, Priorities & Best Practices

William Allen

Michael W. DeGraff

Randall D. McNeely

Ali Pabrai



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Speaker Bio

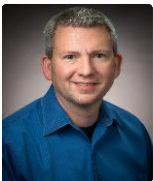
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Ali Pabrai

Global Cybersecurity & Compliance Expert

Mr. Pabrai is a renowned speaker and has delivered keynote and featured briefs to tens of thousands globally. He has consulted with firms world-wide, including U.S., Canada, India, Philippines, UAE, Saudi Arabia, Ghana, Taiwan, and others. Mr. Pabrai served on the HITRUST Assessor Council (2017). Mr. Pabrai is a member of the FBI InfraGard and has presented at its conference events.



Michael W. DeGraff

Michael W. DeGraff is the Director, Enterprise IT Security at The Joint Commission. In his role, Mr. DeGraff ensures that Joint Commission Enterprise electronic information is secure and accessible to the right people at the right time while meeting all contractual and compliance security requirements.

Mr. DeGraff has been with The Joint Commission since 2007, where he began as the Director of IT at Joint Commission Resources. Prior to joining The Joint Commission, Mr. DeGraff worked as a HIPAA consultant and as a Director of IT at a Chicagoland Healthcare organization.

Mr. DeGraff earned his bachelor's degree in physics from the University of Illinois.



Randall D. McNeely

Randy McNeely is the founder of Cybersecurity Enterprises providing cybersecurity advisory services to covered entities and business associates of all sizes to meet their HIPAA security, privacy, risk, and compliance needs. Randy has a unique blend of experience in IT, network engineering, network security, and information security with over twenty years' experience across health care, Department of Defense, U.S. Intelligence, and consulting service verticals.



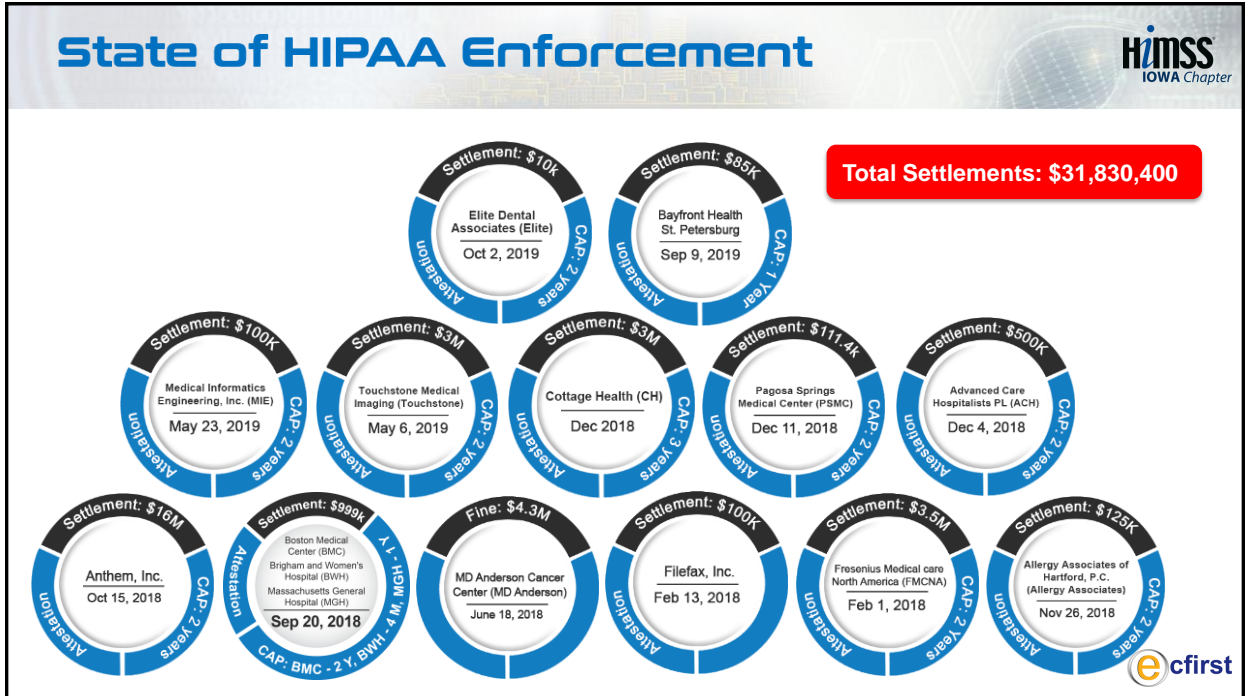
William Allen

William (Will) Allen, CHP, CSCS, CompTIA A+ has been a Data Security Analyst at Mom's Meals for just over one year. For 14 years before that, he was the Network & Systems Analyst for a private physician's clinic. Auditing and evaluating the current security policies and procedures and then developing improvements to those documents is important to any business, and Will revels in the ability to make these advances for Mom's Meals.

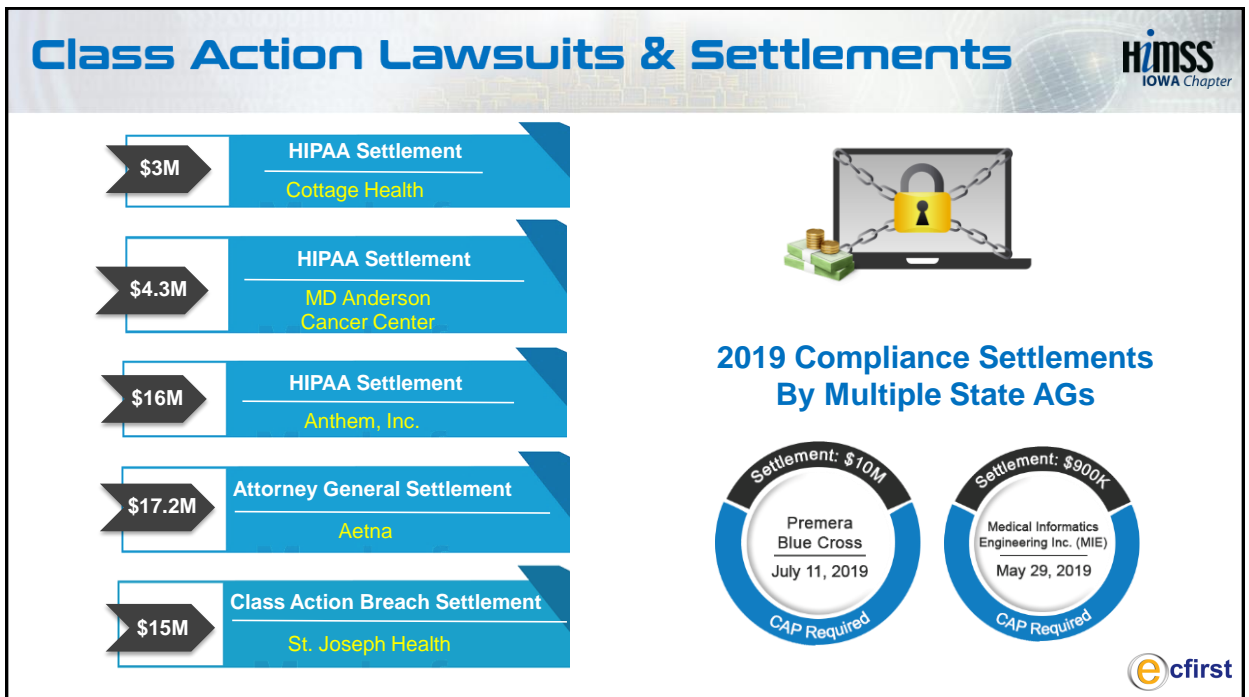
Joining Mom's Meals as a member of the HITRUST certification team, and then losing the team lead, made for an interesting, stressful, and yet rewarding situation. The ability to "roll with the punches" has always allowed Will to navigate the multitude of different fields that he has worked in over the years. This would also account for his taste in video games as he has been an avid player of EVE Online for over 10 years.



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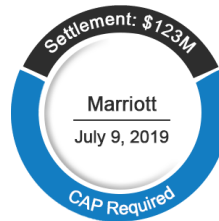
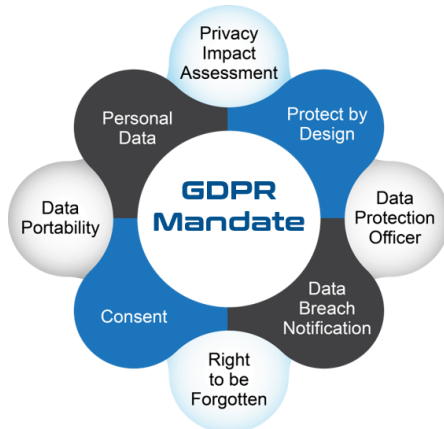
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GDPR "Breach"

- Approx. 60,000 breaches reported since May 25, 2018.
- Notify within 72 hours of becoming aware.



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Breach Facts

4% of people click on phishing emails
(2019 Verizon DBIR)

Health Care was the top sector targeted in North and South America in recent years

(McAfee Labs Threat Report, March 2018)

This is a high profit business that the bad guys will continue to invest in.

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Top Threats to Healthcare Organizations



Human Factors

Phishing

- Employee's take actions on malicious emails and get their credentials phished or provide confidential information to fraudsters

Accidental Disclosures

- Staff send email to wrong person
- Staff share information on screens

Disgruntled Employee

- Steals information to sell or harm the organizations reputation

Human Factors both intentional and non-intentional are the leading cause of breaches in healthcare



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Top Threats to Healthcare Organizations



Non-IT Controlled Systems (Shadow IT)

Engineering (HVAC, Elevator, Fire Protection, Lighting) systems

- Typically managed by the business unit or vendor
- May allow weak access for vendor maintenance
- Usually do not follow IT patching schedules
- Usually not monitored as closely as IT systems

Biomedical Devices (Pumps, Telemetry, Monitors)

- Typically managed by the BioMed department
- Usually utilize older Windows software
- Share Wi-Fi and network with other hospital computers



Non-IT systems may be used to compromise other systems.



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Top Threats to Healthcare Organizations



Legacy Systems

Internally Developed Applications

- ∞ Written many years ago with updates on top of updates.
- ∞ Customization may not be understood by current IT Teams supporting apps

Legacy Lab, Registration, Transcription, Call Center systems

- ∞ Require older versions due to compatibility issues
- ∞ Custom Integration to other systems, costly to upgrade
- ∞ May not support current software and patches



Older security principles and are more susceptible to emerging cyber threats.



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Top Threats to Healthcare Organizations



Over Connectivity

Too many interconnected systems

- ∞ Patient registration information being sent to internal and external systems is not always needed.
- ∞ Data feeds may include unnecessary information
- ∞ Not reviewed regularly for appropriateness of data

Complexity of interfaces

- ∞ Data flows are not always well documented
- ∞ IT resources may not understand all the data feeds

“Systems and data must be secure but accessible”.
(Mike DeGraff)

One weak link in the chain is the source of breaches.



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Cyber Immune Defense



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Cyber Action Required Annually!

1. Implement a cybersecurity framework (e.g. NIST Cybersecurity Framework)
2. Conduct a comprehensive security risk assessment
3. Ensure a technical vulnerability assessment is performed quarterly & a pen test annually
4. Perform a Business Impact Analysis (BIA)
5. Develop a detailed Disaster Recovery Plan (DRP)
6. Create a cyber incident response plan
7. Active risk management program required



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Thank You!



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