wednesday webinar

PRESENTED BY PALMETTO CARE CONNECTIONS

Cybersecurity Best Practices in Health Care

Wednesday, January 27, 11am-12pm EST

Presenter:

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This webinar is being recorded.

Please mute your phones to eliminate background noises.

The webinar recording and presentation
will be available after the webinar.

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Cybersecurity Best Practices in Healthcare

Background

- **Lexington Medical Center**
  - 557 bed hospital located in West Columbia, SC
  - New North tower opened in February 2019
  - 7,000+ health care professionals.
  - 70 physician practices
  - 5 community medical and urgent care centers
  - One of the busiest Emergency Departments in South Carolina
- **Jason Cherry**
  - 15 years of Healthcare IT experience
  - Prior to that, 6 years experience in Financial Services IT
  - Team is responsible for all datacenter operations at LexMed – Backup, Network, Server, Storage, Telecom
  - Do NOT have direct Information Security responsibilities, but work closely with a peer Director that does

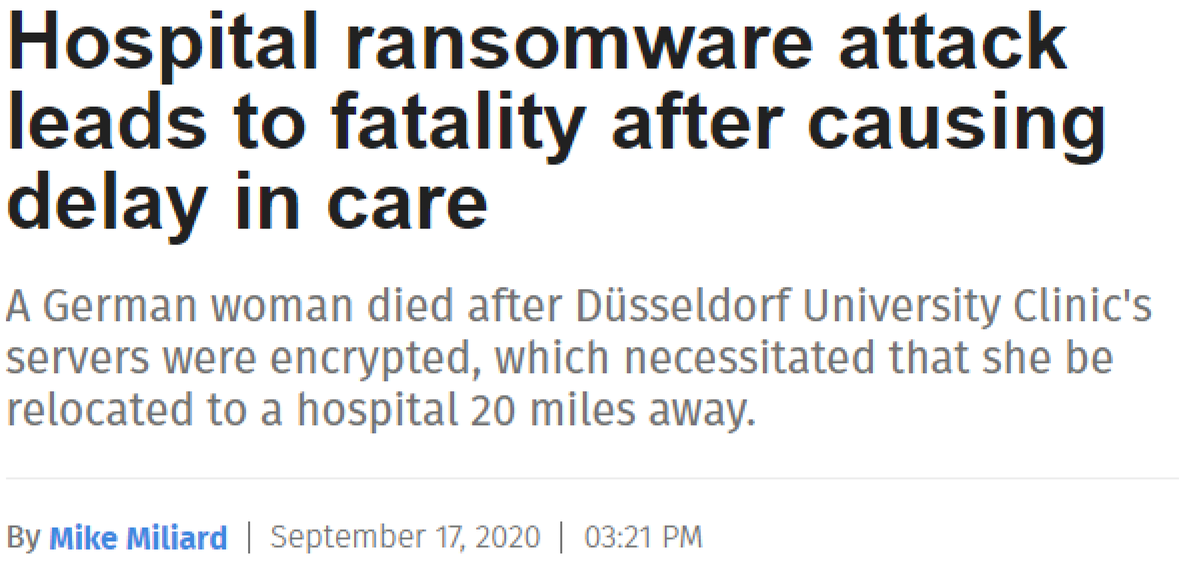
Why Healthcare?

- **Prime Target and Vulnerable for Multiple Reasons**
  - Protected Health Information (PHI) is high value data
  - More IoT/wireless devices that have the potential to be less secure
    - Most often these devices connect to or care for the patient, so they are an excellent entryway into your EMR
  - Patients and their families bring their own devices and expect to connect to wireless
    - This has become an essential part of the patient experience
  - Regulatory bodies that lag behind in approving patches for certain applications
  - Increasing reliance on cloud-based applications. Data is outside your 4 walls.
  - Information systems have become critical in delivering effective and safe patient care

The Impacts of a Breach Are Catastrophic

- **PHI breaches are expensive – fines and credit monitoring services**

- **Ransomware is deadly**
  - Grinds hospital operations to a halt
  - Paper processes are much less efficient and can lead to safety issues
  - Impact can linger for weeks or months
  - Substantial financial impact even if ransom is paid



Hospital ransomware attack leads to fatality after causing delay in care

A German woman died after Düsseldorf University Clinic's servers were encrypted, which necessitated that she be relocated to a hospital 20 miles away.

By **Mike Miliard** | September 17, 2020 | 03:21 PM

How Can My Organization Stay Out of the News?

- **4 Pillars**
  - **Communication**
  - **Documentation**
  - **Education**
  - **Isolation**

Communication

- Get all IT teams actively involved in InfoSec and sharing information frequently
  - Sharing responsibilities helps keep everyone accountable
  - Multiple sets of eyes helps make sure nothing is missed

- Rely on Feds and friends! Several excellent Cybersecurity groups
  - Cybersecurity & Infrastructure Security Agency – www.cisa.gov
  - InfraGard – www.infragard.org
  - Internet Crime and Complaint Center – www.ic3.gov
  - SLED – SC Critical Infrastructure Cybersecurity Program
  - Becker's Hospital Review - https://www.beckershospitalreview.com/cybersecurity.html
  - Health IT Security - https://healthitsecurity.com/

Documentation

- Plan ahead! Document your general response plan and store in a secure location
  - What are your critical applications?
  - What are your most vulnerable/insecure systems?
  - Be part of your Business Continuity plan
  - Review and update **AT LEAST** annually
  - Have an off-network copy

- Practice! Practice! Practice!
  - Test data restores of critical systems from a variety of methods/locations
    - Document any gaps and look for improvements. Be honest!
  - Tabletop drills to test out scenarios and mock events. Prepare for the worst
    - Allows for a much calmer response if an actual event happens. Everyone knows their part

Documentation

- Password policies documented and understood
  - Minimum basic security requirements
  - Required to change on a regular basis
  - Cannot reuse previous # of passwords
  - Elevated privileges should have elevated security requirements

- Account deactivations
  - Have a solid process to deactivate user accounts for people that leave the organization as soon as possible
    - Make sure all access has been revoked when it is supposed to be revoked
    - Have audit logs of all account deactivation work

Documentation

- Patching policies documented and understood
  - Policies for every Operating System that is maintained
  - Maintain a regular cadence of patching to allow for testing while remaining current with security patches
  - Automate patching where you can

- Off cycle/Emergency Patching
  - Have a process documented for ad hoc/off-cycle patching
    - Understand the systems that need to be patched 1st, 2nd, 3rd……….
    - Makes it easier to process patches efficiently in a crisis

- AT LEAST annual audits of your environment to make sure all applicable policies are being followed and enforced

Education

- Get users involved. Make sure they understand the importance
  - Encourage users to report suspicious email no matter how insignificant it may seem
  - Reward users for participating
    - Monthly, random phishing test – users that report the email get a meal ticket
- Invest in Cybersecurity education
  - For users that fail monthly test, a quick video to refresh how to spot a phishing attempt
  - Track metrics for monthly tests and celebrate successes.
    - Helps demonstrate progress and keep everyone accountable
- Tightrope walk between being an alarmist and nonchalant
  - Be transparent to end users, but use non-technical terms

Isolation

- Isolate important systems and only allow minimum necessary communication
  - Focus on critical applications and protecting your organizations most important data
  - Definitely isolate most vulnerable/insecure systems from everything else
  - Monthly, random phishing test – users that report the email get a meal ticket

- Backups and snapshots
  - Make sure backups/snapshots of critical systems are stored in multiple places/datacenters
  - At least one copy should be airgapped/off network/inaccessible by normal means
  - Understand differences between backups and replication
  - Backups are no good if they cannot be restored. Test the process regularly and understand recovery times

- Use 2FA for anything outside your network or your control

Questions?