



# Reducing Risk for Small Provider Practices

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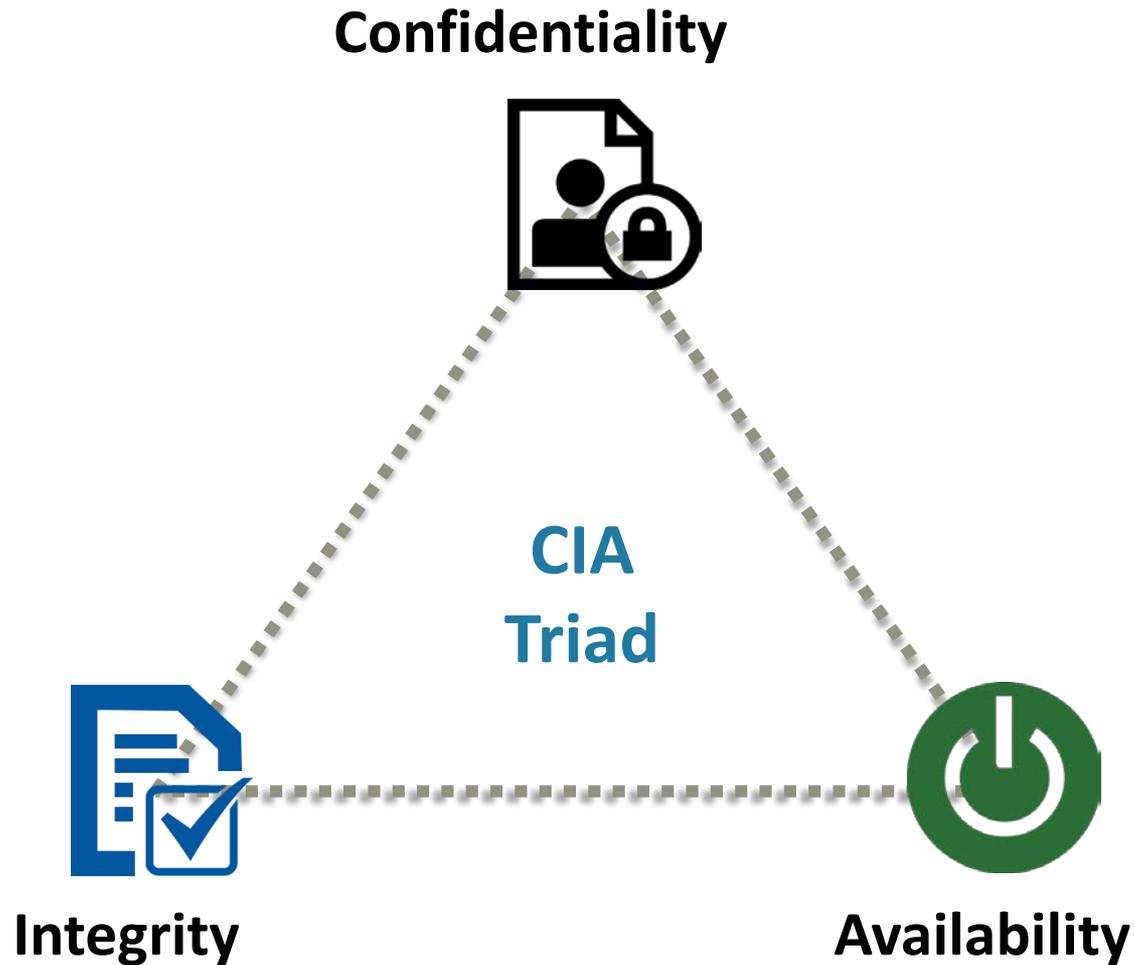
*transforming health through IT*

# Overview



- Information Security
- Why it is important
- Challenges for a Small Practice
- Risk-based Approach
- Safeguards and Measures
- Accomplish your goals
- Lessons learned

# What is Information Security?



# Why Cybersecurity is Important



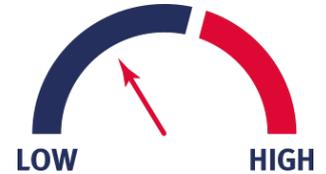
- Millions of records digitized
- Networks are more interconnected
- Attack surface has expanded
- Cybercriminals are more sophisticated
- Federal and state regulations
- Patient privacy and patient safety

# Challenges for Small Practices



- Insufficient budget
- Management on board
- Expensive technology solutions
- Multiple roles, other priorities
- Limited staff, lack of knowledge
- Malware & disaster do not discriminate
- **SAME RULES & REGULATIONS**

# Risk-based Approach



- Prioritize systems and infrastructure
- Understand threats and vulnerabilities
- Safeguards cost/benefit analysis
- Mitigate, remediate, transfer, accept
- Repeat

# Awareness & Education



- Humans introduce risks, intentionally and unintentionally
- Improve awareness, educate staff, make security a core value
- Awareness and training are cost-effective controls
- Help users understand risks: cause and effect



## Filter at the Edge

- Install a firewall
- Web filtering
- Spam filtering
- Application-based filtering

# Secure Endpoints



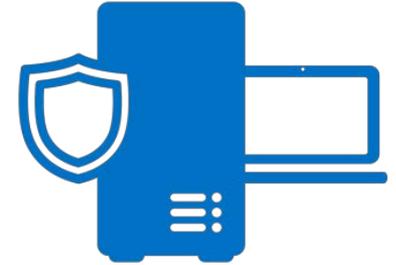
- Inventory hardware and software
- Develop a baseline security
- Run and update anti-virus software
- Implement software restriction policies
- Control access to mass media storage
- Change manufacturer default passwords immediately
- Update client devices on a regular basis, automatically
- Update infrastructure and peripherals periodically

# Protect with Encryption



- In Transit
  - Wireless Encryption
  - Remote Access, Communication, Applications
- At Rest
  - Portable media (USB, external drives, tapes)
  - Portable devices (notebooks, tablets)

# Harden Systems



- Disable unnecessary accounts
- Limit the functions a system performs
- Configure services & features based on role
- Firmware, OS and software up to date
- Disable unnecessary services, protocols
- Run appropriate host based firewall, anti-virus

# Document & Log



- Document policies and procedures
- Network documentation and diagrams
- Hardware and software inventory
- Performance, alerts & summary reports
- Document actions, events, incidents

# Prepare for Disaster



- Have a plan in writing
- Keep documentation up to date
- Alternate storage for plan, documentation
- Verify backups, restore, recovery procedures
- Keep backup media in a safe location

# Accomplish your goals



- Engage management
- Strategic, tactical and operational plans
- Extend your IT staff with team “Champions”
- Team-up staff with consultants and vendors
- Security and availability must be a forethought
- Evaluate new solutions by their lifecycle cost

# Accomplish your goals



- Consider outsourcing high risk systems
- Maximize built-in features and applications
- Standardize client systems and images
- Subscribe to newsletters, keep users informed
- Leverage open source, community, free tools
- Centralize documentation, reporting, alerts



## Lessons Learned

- Be proactive, don't leave it for tomorrow
- Don't go it alone, build a team
- Security is not binary, or static
- Security is a program, not a project
- It requires more than best practices and technology