



BACK TO BASICS: PRACTICAL WAYS TO IMPROVE CYBERSECURITY AT YOUR PRACTICE

OCTOBER 25, 2018

ABOUT MHCC

- Independent regulatory agency with a mission to plan for health system needs, promote informed decision-making, increase accountability, and improve access to health care
- Facilitate collaboration among health care consumers, payers, and providers to achieve widespread adoption and optimized use of health IT
- Increase timely access to accurate health information
- Advance health IT statewide by promoting optimal adoption and use, identifying challenges, and raising awareness through outreach activities
- Balance the need for information sharing with consumers' desire for strong privacy and security protections

AGENDA

- Trends in health care data breaches
- Cybersecurity Self-Assessment Readiness Tool
- Buy Maryland Cybersecurity (BMC) Tax Credit
- Practical Steps to Improve Cybersecurity
- Q&A



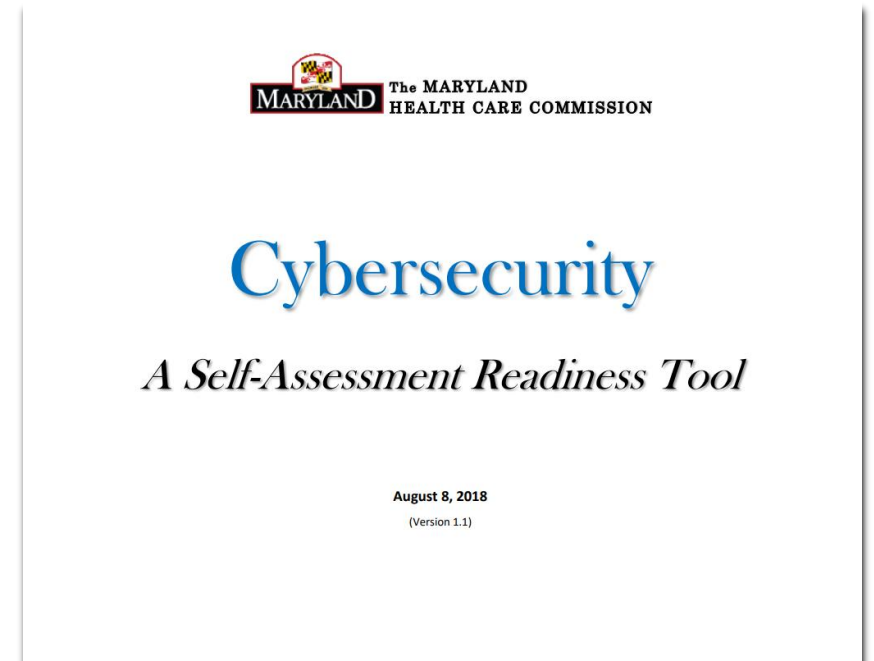
HEALTH CARE DATA BREACHES

- Exponential growth in hacking/IT related breaches in Maryland and the nation; accounting for the majority of records compromised
 - Ransomware, the most common type of malware, represents a quarter of hacking/ IT breaches nationally
- Health care providers in all states increasingly being targeted
 - In 2016, Maryland was one of fifteen states where providers accounted for all reported breaches
- High profile incidents like the Equifax breach and WannaCry virus highlight the importance of cybersecurity basics
- Evolving cyber threats require more focus on changing end-user behavior to reduce risk of a breach

Note: MHCC analyzed data on health care data breaches affecting >500 individual. Data was obtain from the Department of Health and Human Services, Office for Civil Rights Online Portal.

CYBERSECURITY SELF-ASSESSMENT TOOL

- Available to health care providers to help assess cybersecurity readiness and identify potential gaps that may create risk
- Questions align with the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF), a set of standards, best practices, and recommendations for improving cybersecurity
- Includes a series of self-evaluation statements grouped by people, processes, policies, and technology
- Results can help inform your practice about the adequacy of existing cyber protections
- Tool available at:
mhcc.maryland.gov/mhcc/pages/hit/hit_cybersecurity/documents/Cybersecurity_Self-Assessment_Tool.pdf





PRACTICAL STEPS TO IMPROVE CYBERSECURITY

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HEAD, SECURITY SERVICES, MOKXA TECHNOLOGIES



Back to Basics : Practical Ways to Improve Cybersecurity at Your Practice

Collaborate | Innovate | Solutions





AGENDA



- State of Cybersecurity for SMBs
- Cybersecurity challenges for small practices
- Cost of breaches
- Top 5 security steps for small business
- Understanding and managing security risk



STATE OF CYBERSECURITY FOR SMBs

60% of small businesses say attacks are becoming more severe and more sophisticated.

Ponemon 2017 State of Cybersecurity in SMBs

58% of malware attack victims are categorized as small businesses.

Verizon 2018 DBIR

92.4% of malware is delivered via email.

Verizon 2018 DBIR

In 2017, cyber attacks cost small and medium-sized businesses an average of \$2,235,000.

Ponemon 2017 State of Cybersecurity in SMBs

CHALLENGES FOR SMALL PRACTICES



NUMBER OF RECORDS BREACHED BY INDUSTRY

- HEALTHCARE ●
- GOVERNMENT ●
- TECHNOLOGY ●
- RETAIL ●
- EDUCATION ●
- OTHER ●
- FINANCIAL ●

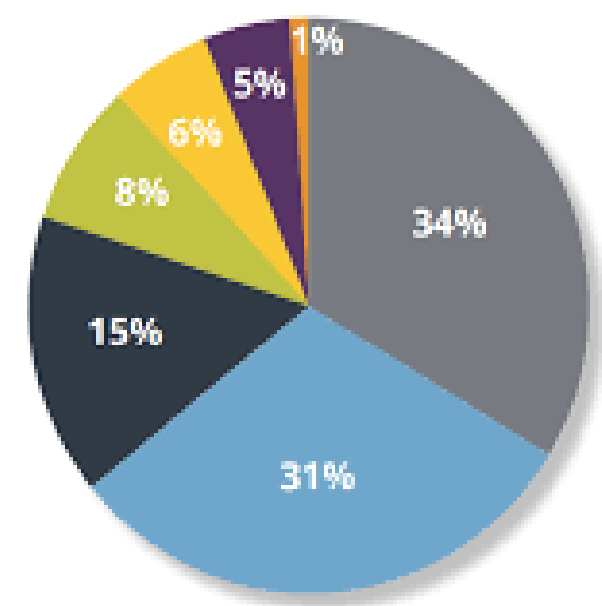


Image: Gemalto



COST OF BREACHES

Penalties

HIPAA Violations

1. Max Penalty - \$50K per violation
2. Annual Max - \$1.5M

Criminal penalties

1. Knowingly buy/sell - \$50K & 1Y
2. False pretenses - \$100K & 5Y
3. Intent to sell - \$250K & 5Y

Cost Components of Data Breach

1. Investigation
2. Remediation
3. Notification
4. Identity theft repair & credit monitoring
5. Regulatory fines
6. Interrupted business operations
7. Loss of business
8. Class-action law suited



TOP 5 SECURITY STEPS FOR SMALL PRACTICES



1. Secure your employees
2. Control access
3. Secure enterprise data
4. Manage network & devices
5. Secure your applications

1. SECURE YOUR EMPLOYEES



SECURE YOUR EMPLOYEES

Train employees on cybersecurity

Avoid email 'phishing'

Do not forget physical security

2. CONTROL ACCESS



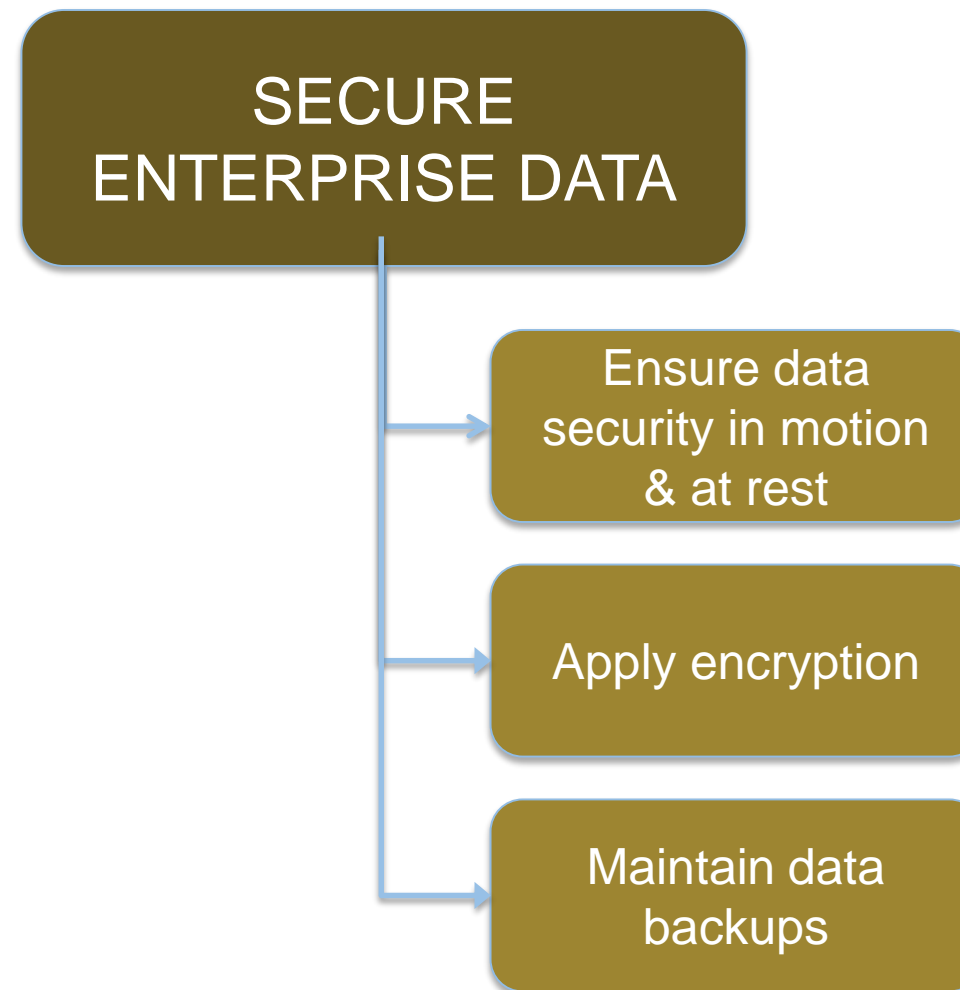
CONTROL ACCESS

Ensure individual access

Ensure role based access

Add strong authentication

3. SECURE ENTERPRISE DATA



4. MANAGE NETWORK & DEVICES



MANAGE NETWORK & DEVICES

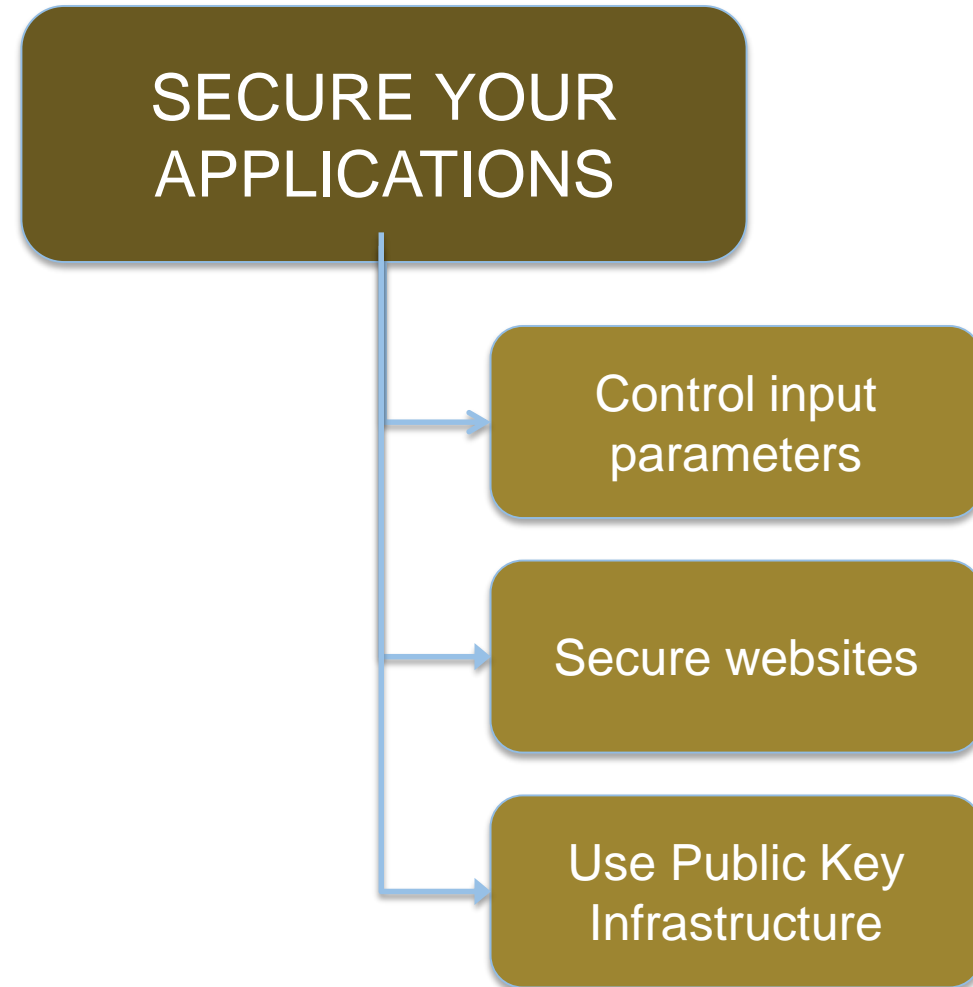
Deploy Firewalls & malware protection

Patch systems regularly

Control wireless access

5. SECURE YOUR APPLICATIONS

```
var evts = 'contextmenu dblclick drag dragend dragenter  
);  
var logHuman = function() {  
if (window.wflogHuman) { return; }  
window.wflogHuman = true;  
var wfscr = document.createElement('script');  
wfscr.type = 'text/javascript';  
wfscr.async = true;  
wfscr.src = url + '&r=' + Math.random();  
(document.getElementsByTagName('head')[0] || document.getElementsByTagName('body')[0]).appendChild(wfscr);  
for (var i = 0; i < evts.length; i++) {  
removeEvent(evts[i], logHuman);  
}  
};  
for (var i = 0; i < evts.length; i++) {  
addEvent(evts[i], logHuman);  
}  
afe.com/?wordfence_lh=1&hid=A957C90CB285F093A87A2773W61108  
= 'ref';  
</script> <noscript> <style> www.wondershare.com  
([r].l-1)new Date();  
if (w.parent.location
```



MANAGING SECURITY RISK



- Understanding and managing security risk
 - Assess security risks first and then build plan
 - Determine likelihood and impact
 - Determine 'crown jewels'
 - Understand liabilities if outsourcing
- Security Model for small business
 - Tailor plan to identified risks
 - Plan for ongoing set of activities
 - Implement formal security policies
 - Utilize cash and tax incentives
 - Consider cyber insurance



THANK YOU

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BUY MARYLAND CYBERSECURITY (BMC) TAX CREDIT

LAUREN SATYSHUR

HEALTH IT PROGRAM MANAGER, OFFICE OF CYBERSECURITY & AEROSPACE, MARYLAND DEPARTMENT OF COMMERCE

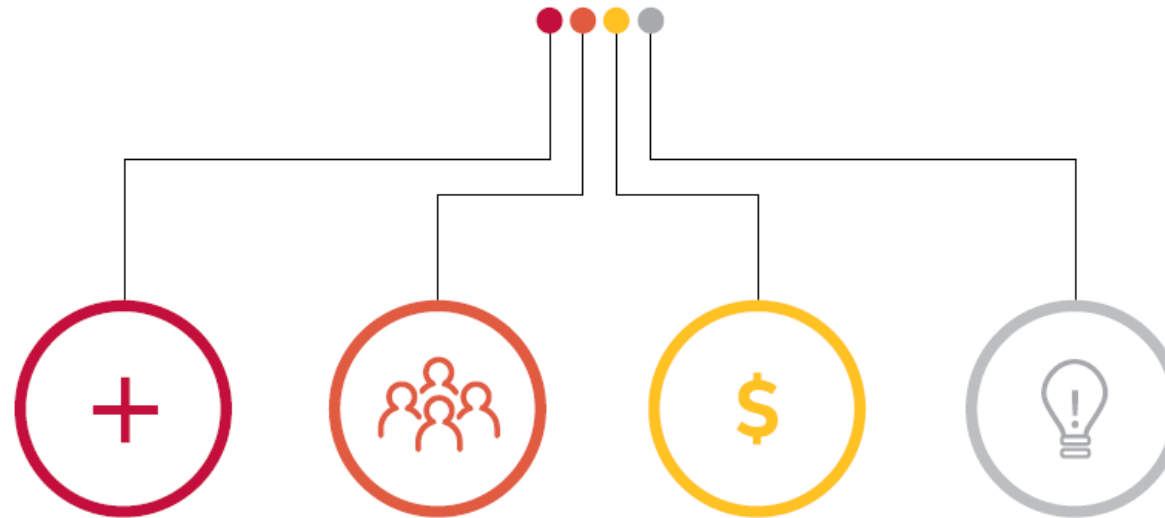


Maryland

Cyber
OPEN FOR BUSINESS



Maryland's Cybersecurity Innovation



UNIQUE ASSETS

- 115,500 tech industry jobs
- 60 federal agencies
- NSA/USCYBERCOM
- 20 military facilities

WORKFORCE

- 3x's more cyber engineers than rest of nation
- #1 concentration of STEM professionals
- 16 NSA certified CAEs
- #2 professional and technical workforce

INCENTIVES

- SCIF Tax Credit
- Cyber Investment Tax Credit
- R&D Tax Credit
- Seed and venture funding

INNOVATION

- #2 innovation ranking
- #2 best state for opportunity
- #3 growth entrepreneurship
- 35+ incubators, accelerator research parks



Buy Maryland Cybersecurity (BMC) Tax Credit

June 1, 2018

In a big win for everyone in Maryland, the state legislature passed a landmark cybersecurity tax credit for small businesses.



Buy Maryland Cybersecurity (BMC) Tax Credit

- ▶ Too many small businesses have not had the necessary financial and human resources to improve their cybersecurity.
- ▶ BMC is aimed at reducing the alarming statistics of data breaches affecting hundreds of thousands of Maryland residents by stimulating investment in cyber products & services.



"This way I don't have to spend all that money
on fancy cybersecurity."



Tax Benefit to Buyer + Use Case

- ▶ Your business can claim a credit on your state income tax equal to **50% of the cost** to purchase qualified cybersecurity products and services, **up to a maximum of \$50,000 in credits** (\$100,000 total purchase.)

- ▶ **Use case for a small medical practice:**

Purchase made directly from a Qualified Maryland Cybersecurity Seller

Purchase price of cybersecurity technology or service: \$2,000
Calculate the 50% of purchase price tax credit ($\$2,000 \times .5 = \$1,000$)

Tax Credit Amount = **\$1,000**



Program Definitions & Eligibility

Your business is eligible for the state income tax credit if you are a Maryland entity with **fewer than 50 full-time employees**.

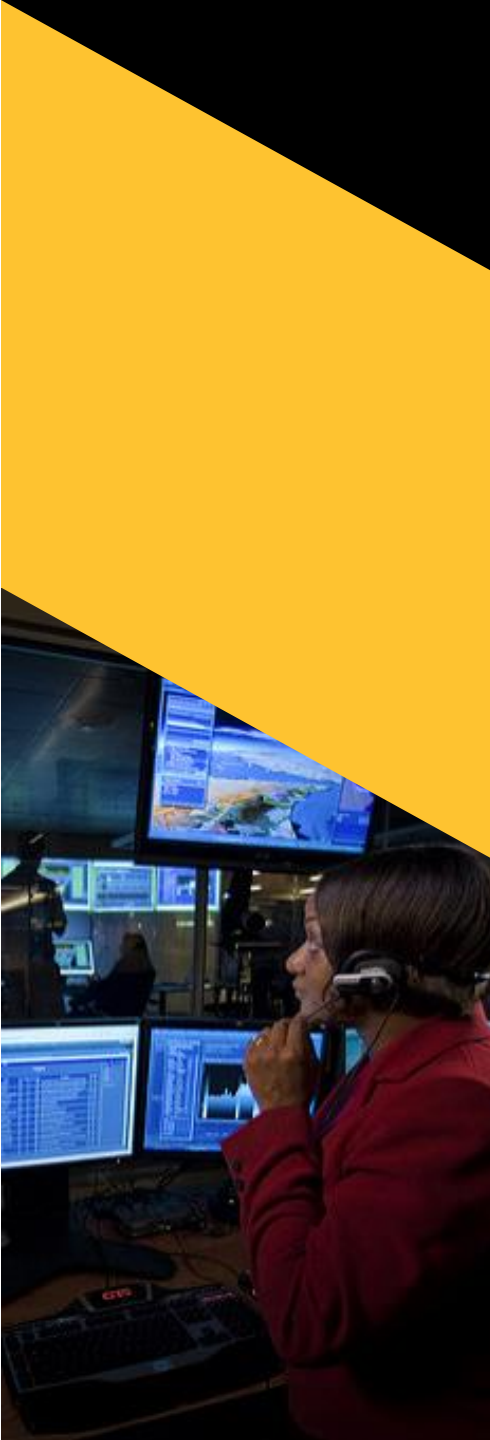
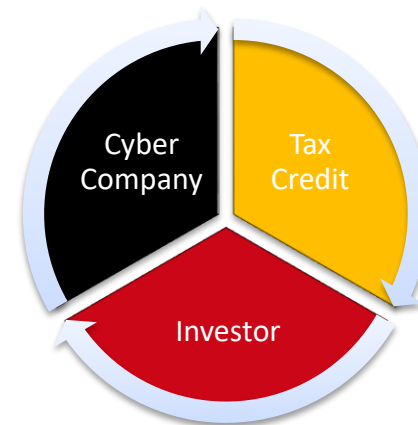
Cybersecurity technology **means** products or goods intended to detect or prevent activity intended to result in unauthorized access to, exfiltration of, manipulation of, or impairment to the integrity, confidentiality, or availability of an information system or information stored on or transiting an information system.

A **Qualified Maryland Cybersecurity Company** (QMCC) is a company that has been certified by the Department of Commerce.



Cyber Company Certification

- ▶ A Qualified Maryland Cybersecurity Company (QMCC) is a company that meets the following requirements and has been certified by the Department of Commerce (Commerce):
 - Has its headquarters and base of operations **in Maryland**;
 - Has **fewer than 50** employees;
 - OR is designated as a minority-owned, woman-owned, veteran-owned or service-disabled-veteran-owned-business



BMC Tax Credit Form

Qualified BUYER Application

To qualify for the credit, please complete and submit the Qualified Maryland Company BUYER application to the Department of Commerce. [DOWNLOAD HERE.](#)



BUY MARYLAND CYBERSECURITY TAX CREDIT QUALIFIED MARYLAND COMPANY (BUYER) TAX CREDIT APPLICATION				
APPLICATION FOR TAX YEAR 2018				
<i>IMPORTANT – Because the Buy Maryland Cybersecurity Tax Credit is limited and capped, applications are accepted on a first come, first served basis. Signature required.</i>				
1. Full Legal Name of Organization				
2. Federal Employer Identification Number (FEIN)				
3. Unemployment Insurance Number				
4. Legal Form of Entity				
<input type="checkbox"/> C Corporation	<input type="checkbox"/> S Corporation	<input type="checkbox"/> LLC	<input type="checkbox"/> LLP	<input type="checkbox"/> Limited Partnership
<input type="checkbox"/> General Partnership				
LLLP <input type="checkbox"/> Other (Provide Legal Form of Entity):				
5. NAICS Code		6. Total Number of Maryland Employee(s)		
7. Name of Cybersecurity Seller (Company that Sold the Cybersecurity Technology or Service)				
8. Total Amount of Requested Tax Credit (Total from Column E in Section 9) \$				
9. Buy Maryland Cybersecurity – Requested Tax Credit Calculation Worksheet				
A	B	C	D	E
Cybersecurity Purchase	Type of Purchase	Purchase Price	For Purchases Made from a Third-Party Reseller: Reduce Purchase Price by 20%	Requested Tax Credit Amount (50% of Purchase Price from QMCS, or Reseller After Reduction in Column D)
Total Amount of Requested Tax Credit (Sum Total of Column E)				
<i>Information on completing the Requested Tax Credit Calculation Worksheet is available on page 3 of the application.</i>				
12. Supporting Documentation Checklist				
Required Documentation	Acceptable Documentary Evidence		Yes/No	
(1) Proof of Purchase	Copy of itemized invoice that clearly identifies the purchase price and name of each cybersecurity technology or service purchased and listed in Section 9.		Yes	No
(2) Proof of Payment	Copy of a receipt marked paid; <u>OR</u> , evidence of a wire transfer, canceled check, credit card statement, or bank statement that clearly identifies the vendor that sold the cybersecurity technology or service.		Yes	No



Find Maryland Cyber Companies

<https://www.mdcyber.com/listings/>



CYBER SECURITY
ASSOCIATION OF MARYLAND, INC.

Filter Results

Sort By: ▼

I am a (check one): ▼

My company size is:

- No employees (32)
- 1-10 employees (129)
- 11-50 employees (159)
- 51-200 employees (172)
- 201-500 employees (161)
- 501-1,000 employees (160)

Specializing in this industry:

- Education (62)
- Energy/Utilities (71)
- Financial Services (105)
- Government (150)
- Healthcare (143)
- Hospitality (16)
- Insurance (37)

Specializing in:

- Proprietary products (110)
- Reseller products (88)
- Managed/remote services (167)
- Onsite services (179)

MD Cybersecurity Company Directory

share

Here you will find cybersecurity product and service companies located in Maryland. Use the search filtering tool to the left to identify specific companies that: provide cybersecurity products or services to meet your needs; are capable/willing to work with a business/organization/agency of your size and/or in your industry; have designations that may be of interest to you (such as woman-owned, veteran-owned, hub zone-located); and more. Need help searching? Contact us at info@MDcyber.com.

Anchor Technologies, Inc. [share](#)



Anchor Technologies, Inc. (ATI) is a cyber security and risk management firm headquartered in Maryland performing business-to-business services nationally. ...

Industries: Accounting, Education, Energy/Utilities, Financial Services, Manufacturing

CYBERSPACE ANALYTICS CORP [share](#)



Proven cybersecurity insights for business- relied on by top government agencies and institutions. Products & Services: CyberSpaceSuite CSS ...

Industries: Energy/Utilities, Government, Healthcare, Manufacturing, Other

Penacity, LLC [share](#)



Penacity, LLC provides strategic consulting technology services and Information Security Services to commercial and government organizations. Founded ...

Industries: Education, Financial Services, Government, Healthcare, Other

Patriot Technologies [share](#)



Patriot Technologies, Inc. is a cyber technology and security consulting firm headquartered in Frederick, MD. The ISO 9001:2008 certified organization ...

Industries: Education, Energy/Utilities, Financial Services, Government, Healthcare





CONTACTS

For information about Buy Maryland Cybersecurity Tax Credit:

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commerce.maryland.gov

Buy Maryland Cybersecurity (BMC) Tax Credit

View the current list of Qualified
Maryland Cybersecurity Sellers
[COMING SOON]

<http://commerce.maryland.gov/fund/programs-for-businesses/buy-maryland-cybersecurity-tax-credit>



UPCOMING EVENTS

CYBERSECURITY FOR SMBs PART III & GRASSROOTS ADVOCACY TRAINING

December 13 AT 9:30 AM
Anne Arundel Community College
101 College Pkwy, Arnold, MD 21012

This seminar will explore questions like:

- Cloud Security vs Local Security?
- Who are the cloud providers serving small and medium size businesses?
- Does going to cloud automatically increase the security?
- Options for engaging cloud services securely?



THANK YOU



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