Building a Resilient Cybersecurity Program

North Carolina Cybersecurity Awareness Symposium

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www.ncmbc.us/www.cyberNC.us

North Carolina Military Business Center

Who We Are

- The NCMBC is a statewide, business development and technology transition asset of the NC Community College System, headquartered at Fayetteville Tech
- Totally State-funded, the NCMBC is the only statewide, military-focused economic development entity in the US, and the only NC agency solely focused on growing the defense economy through existing industry

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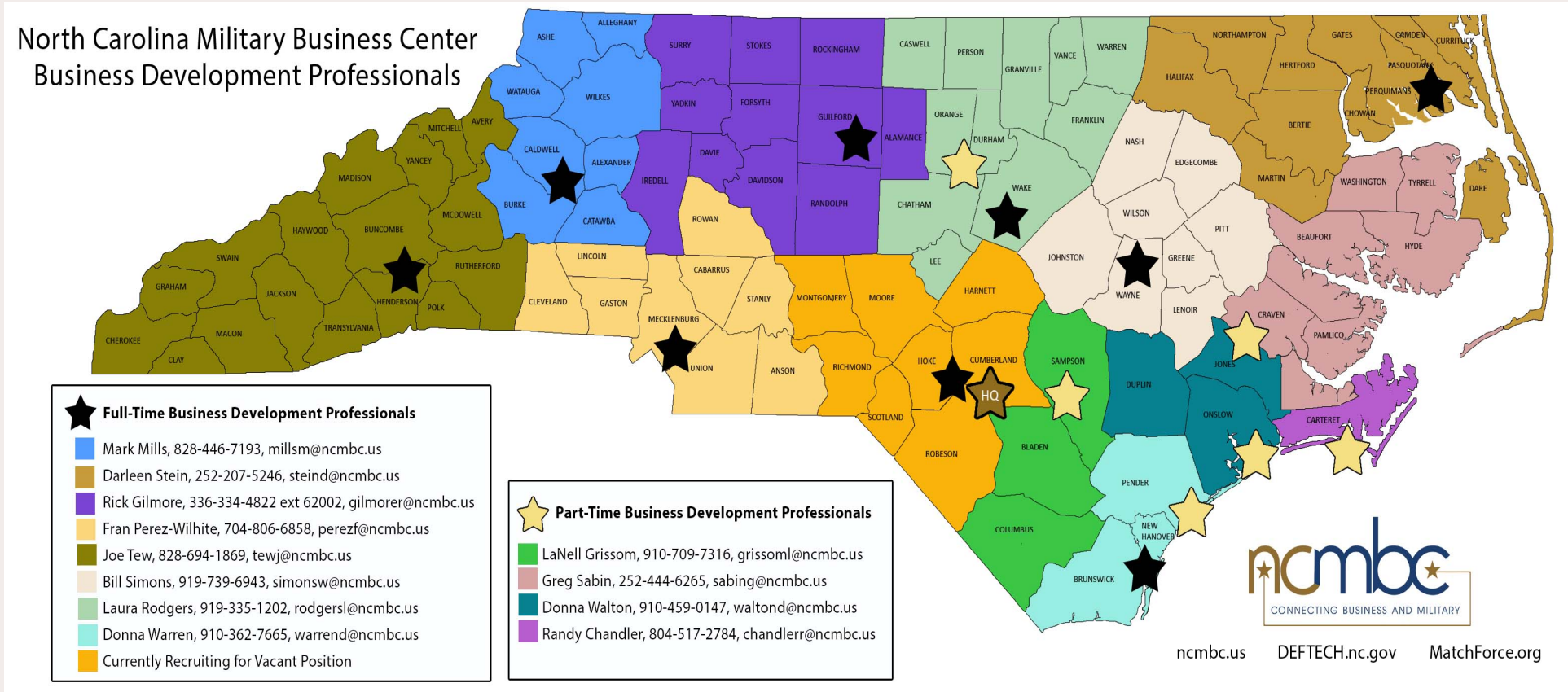

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MatchForce is a free tool that:

- Matches businesses to federal opportunities
- Matches contracting staff to NC businesses
- Matches prime contractors to NC subcontractors
- Matches businesses to future opportunities (forecast data)
- Businesses won >$5.51 billion, 2006-2021 contracts

Matchforce.org

North Carolina Military Business Center

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Building a Resilient Cybersecurity Program

We live a time of unprecedented change and change is occurring at an unprecedented rate – the “Exponential Age”. It is almost impossible to keep up – to stay ahead of evolving threats and new technologies.

Building a Resilient Cybersecurity Program

Resilience: the ability to prepare for, withstand, adapt to, respond to, and rapidly recover from changing conditions and acute disruptions. Requires competence, flexibility, responsibility, communication, teamwork, and problem-solving.

Resilience = Business Continuity

Building a Resilient Cybersecurity Program

Prepare

- *Tone at the Top* – leaders must understand the need for a resilient cybersecurity program, communicate that need effectively, and provide the resources to develop, maintain, evaluate and evolve the program.

Developing a cybersecurity program is a business decision

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Prepare

- ✓ *Asset Inventories – to protect assets you must know what assets you have, where they are located and who is responsible for them; AND if the assets must be protected per government regulations.*

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Prepare

- *Asset Inventories*
  - Data (the new currency)
    - ✓ Types of data – sensitive, IP, legal documents, regulated, intangible (brand), etc.
  - IT – software/hardware
  - Any asset(s) that could be harmed by a cybersecurity incident

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Prepare

- Know your risks and vulnerabilities – perform a thorough *risk analysis*. Be sure to include supply chain risks.

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Withstand –
Risk Treatments

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Withstand

- *Transfer Risk*
  - Cloud service provider - handle complex cybersecurity controls
  - Purchase cybersecurity insurance
- *Avoid Risk*
  - Dispose of unnecessary assets (such as old data)
  - Minimize the transfer of sensitive data

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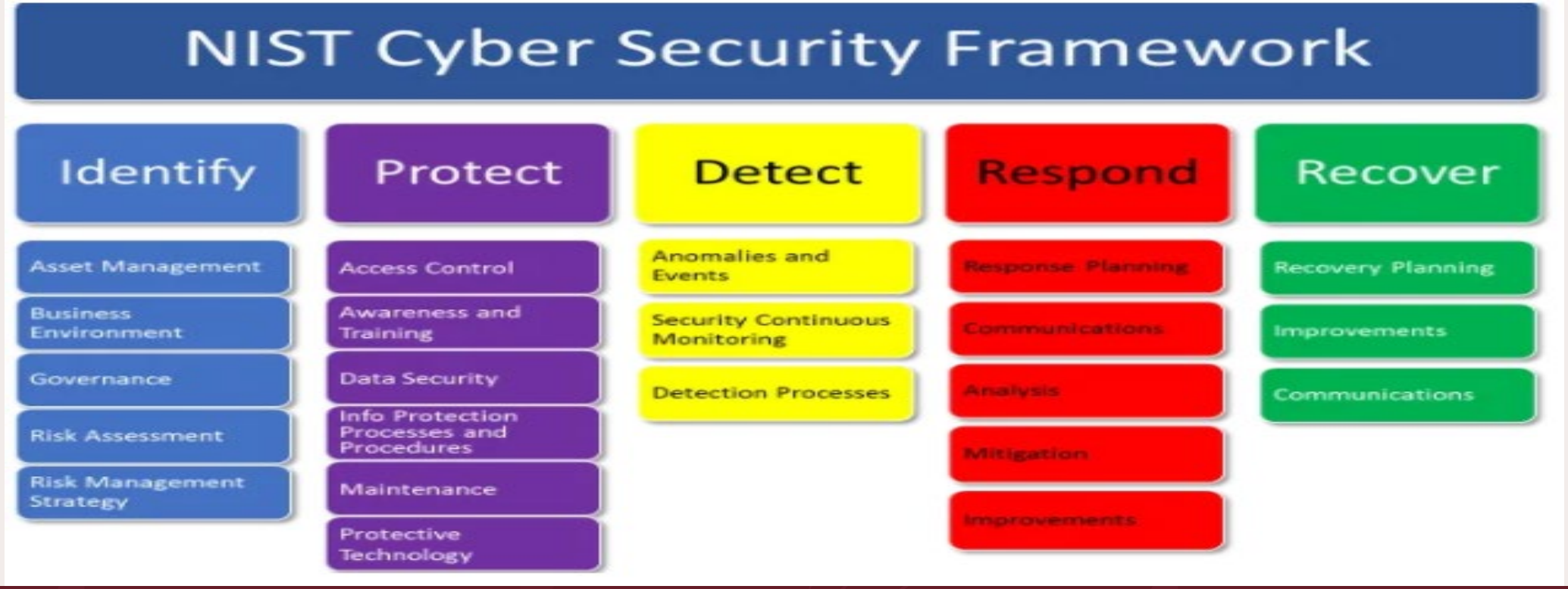
Withstand **–** *Reduce Risk* **–** Select a Framework/Controls



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Withstand

Reduce Risk - Example

- Training – for most organizations, the biggest cybersecurity risk is people risk. Invest in awareness and task-specific training. A well-trained workforce is your first line of defense.
    - Recommend Wizer's free training: https://www.wizer-training.com/

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Withstand

- *Residual Risk* - risk can't be 100% eliminated. Decide how much risk you are willing to accept based on your organization's risk appetite.

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Withstand

Policies/Procedures – comprehensive cybersecurity policies and procedures keep everyone in the same boat and paddling in the same direction. You will get repeatable, quality results with a good policy/procedure framework. Ad hoc frameworks create confusion and chaos – and increase risk.

The SANS Institute has good – and free – templates:
https://www.sans.org/information-security-policy/

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Withstand - *Respond*

- Need event/incident detection – can't respond if you don't know an incident has occurred
- Incident analysis – to respond effectively you need to understand the incident/impact
- Know how to report cyber incidents – NCDIT Incident Reporting
- Develop processes/procedures to handle a variety of incidents
- Practice incident response

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Adapt

- In this Exponential Age, *situational awareness* is critical – and it must be intentional. You can't adapt if you don't know what is changing.
  - ✓ Cybersecurity & Infrastructure Security Agency (CISA) – website shows recent vulnerabilities, threat analysis reports, and an alert system that sends the latest information to you via email. https://us-cert.cisa.gov/
  - ✓ Federal cyber regulations, Executive Orders, CyberSpace Solarium Commission Report, MITRE ATT&CK framework, etc.

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Adapt

- Implicit in adaptation is *continuous improvement* – understanding how the new information/technology impacts your organization then determining how to incorporate it into your current system – AND learning from cyber incidents.

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Rapidly Recover

- Easier to recover if you have good policies/procedures in place to provide direction
- Need to know what assets were lost/impacted (asset inventory)
- Have multiple back-ups with one being offsite
- Test back-up and restore process to make sure it works
- Perform a root cause analysis of the incident
- Lessons Learned meeting
- Incorporate information from root cause/lessons learned

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Key takeaways:

- Takes time – no quick fixes
- Team effort – not an IT task
- Should be “foundational” – just as important as cost, schedule and performance
- Should be approached holistically – not a checklist of controls
- Requires a change in culture – focus on continuous improvement
- ***May save your organization***

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