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2022 NACo

LEGISLATIVE CONFERENCE

FEBRUARY 12-16 | WASHINGTON HILTON | WASHINGTON, D.C.

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Welcome to the Telecommunications & Technology Policy Steering Committee Business Meeting

Housekeeping

- Please stay masked unless actively eating or drinking
- Use standing microphones for questions and comments
- Virtual attendees may “raise hand” to be recognized or ask questions and make comments in the chat
- Slides and all materials will be emailed to the Committee after the conference!

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Run of Show

1:30pm: Opening remarks and introductions, Chair Clark
1:45pm-2:15pm: Next-Gen 911 with State Senator Kagan
2:15pm-2:45pm: Cyber Priorities w/ Sen. Peters and Rita Reynolds
2:45pm-3:15pm: Fireside chat with Kevin Gallagher, DOC
3:15pm-3:45pm: FCC presentation (recorded) & Federal Policy Update
3:45pm-4:15pm: T&T business meeting (committee members only)

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Opening Remarks and Introductions

Chair Tarryl Clark

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Next-Generation 911 Presentation, State Senator Cheryl Kagan (D-Md.)

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Local Cybersecurity Priorities, Sen. Gary Peters and Rita Reynolds

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Remarks from Senator Gary Peters

Click to Watch Remarks

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Evolving Threat Landscape

Ransomware

IoT Devices

Insider

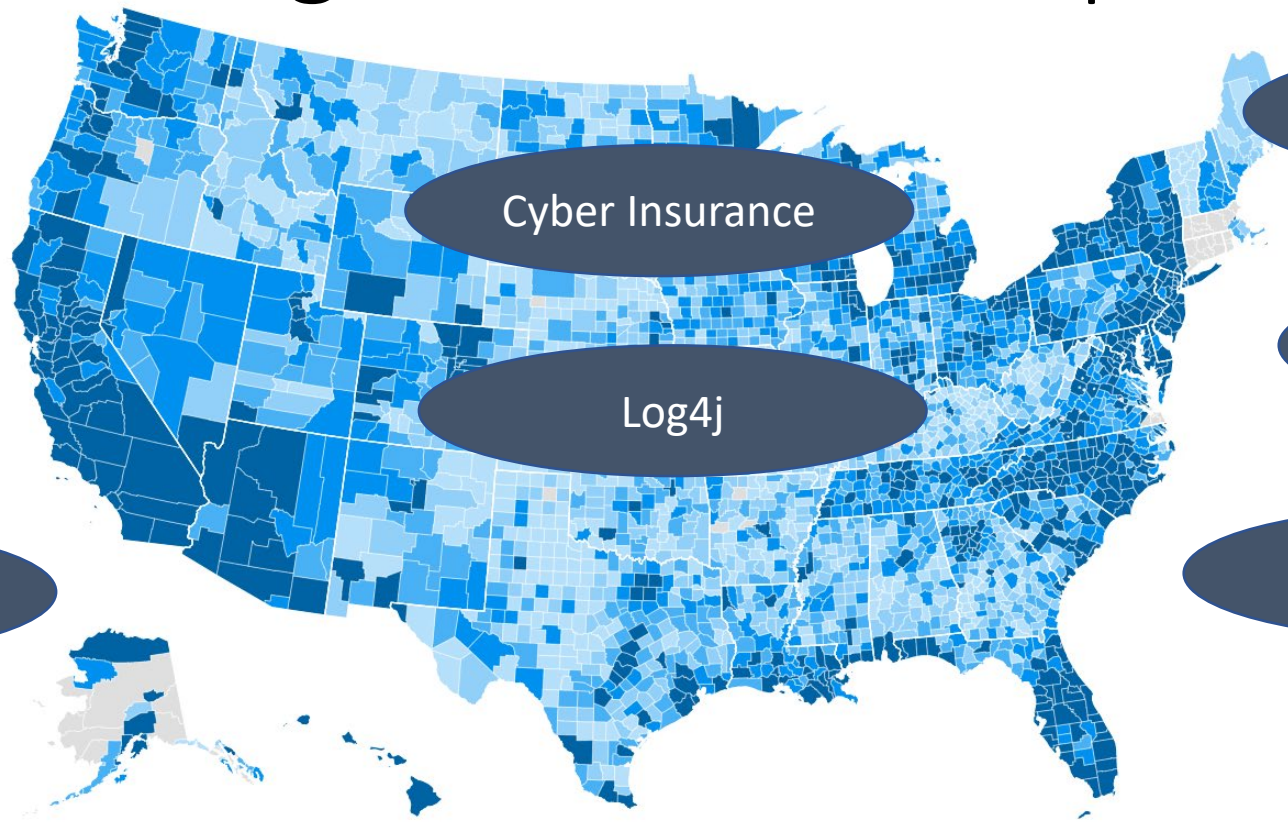
Cyber Insurance

Log4j

Russia

Ukraine

Mis/Dis Information



Source: NACo Analysis of U.S. Census Bureau - Census of Individual Governments: Finance

Numbers within each color box represent the distribution of counties.

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External Threats – Hacker As a Service

Along with the encrypting system, you get access to the fastest stealer all over the world - StealBit automatically downloading all files of the attacked company to our updated blog.

Comparative table of the information download speed of the attacked company

Testing was made on the computer with a speed of Internet of 1 gigabit per second

Downloading method	Speed in megabytes per second	Compression in real time	Hidden mode	drag'n'drop	Time spent for downloading of 10 GB	Time spent for downloading of 100 GB	Time spent for downloading of 10 TB
Stealer - StealBIT	**83,46 MB/s**	**Yes**	**Yes**	**Yes**	**1M 59S**	**19M 58S**	**1D 9H 16M 57S**
Rclone pcloud.com free	4,82 MB/s	No	No	No	**34M 34S**	**5H 45M 46S**	**24D 18M 8S**
Rclone pcloud.com premium	4,38 MB/s	No	No	No	**38M 3S**	**6H 20M 31S**	**26D 10H 11M 45S**
Rclone mail.ru free	3,56 MB/s	No	No	No	**46M 48S**	**7H 48M 9S**	**32D 12H 16M 28S**
Rclone mega.nz free	2,01 MB/s	No	No	No	**1H 22M 55S**	**13H 48M 11S**	**57D 13H 58M 44s**
Rclone mega.nz PRO	1,01 MB/s	No	No	No	**2H 45M**	**1D 03H 30M 9S**	**114D 14H 16M 30S**
Rclone yandex.ru free	0,52 MB/s	No	No	No	**5H 20M 30S**	**2D 05H 25M 7S**	**222D 13H 52M 49S**

Only you decide during communication how much the encrypted company will pay you. You get the payment to

External Threats – Hacker As a Service

LockBit 2.0 is the fastest encryption software all over the world. In order to make it clear, we made a comparative table with several similar programs indicating the encryption speed at same conditions, making no secret of their names.

Encryption speed comparative table for some ransomware - 02.08.2021

PC for testing: Windows Server 2016 x64 \ 8 core Xeon E5-2680@2.40GHz \ 16 GB RAM \ SSD

Name of the ransomware	Date of a sample	Speed in megabytes per second	Time spent for encryption of 100 GB	Time spent for encryption of 10 TB	Self spread	Size sample in KB	The number of the encrypted files (All file in a system 257472)
LOCKBIT 2.0	5 Jun, 2021	373 MB/s	4M 28S	7H 26M 40S	Yes	855 KB	109964
LOCKBIT	14 Feb, 2021	266 MB/s	6M 16S	10H 26M 40S	Yes	146 KB	110029
Cuba	8 Mar, 2020	185 MB/s	9M	15H	No	1130 KB	110468
BlackMatter	2 Aug, 2021	185 MB/s	9M	15H	No	67 KB	111018
Babuk	20 Apr, 2021	166 MB/s	10M	16H 40M	Yes	79 KB	109969
Sodinokibi	4 Jul, 2019	151 MB/s	11M	18H 20M	No	253 KB	95490
Ragnar	11 Feb, 2020	151 MB/s	11M	18H 20M	No	40 KB	110651
NetWalker	19 Oct, 2020	151 MB/s	11M	18H 20M	No	902 KB	109892
MAKOP	27 Oct, 2020	138 MB/s	12M	20H	No	115 KB	111002
RansomEXX	14 Dec,2020	138 MB/s	12M	20H	No	156 KB	109700
Pysa	8 Apr, 2021	128 MB/s	13M	21H 40M	No	500 KB	108430
Avaddon	9 Jun, 2020	119 MB/s	14M	23H 20M	No	1054 KB	109952

The Current State of Cyber – Insider Threats

An internal employee maliciously or inadvertently causes an issue to occur.

- NEW: USB mailings starting in August 2021 and continuing through January 2022.
- When plugged in, the device may appear to be a keyboard on the system and execute code in memory, including a PowerShell payload.

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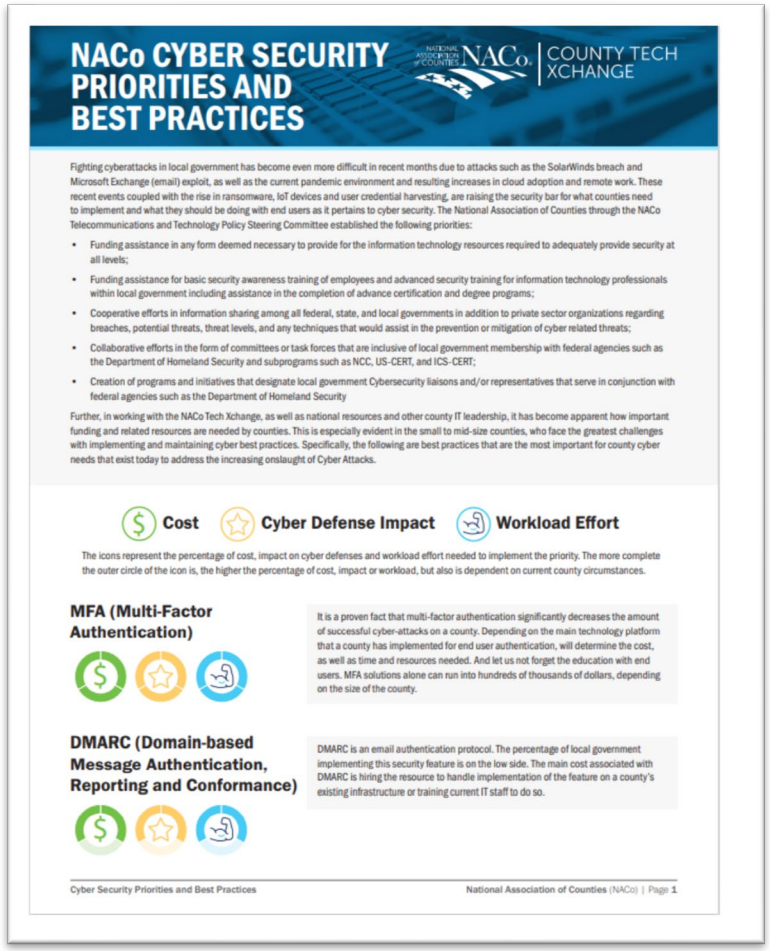
Local Government Cyber Priorities

[NACo Cyber Priorities and Best Practices Publication]

1. **MFA – Multi Factor Authentication**
2. DMARC
3. **DotGov**
4. Assessments
5. **Join MS-ISAC**
6. Monitoring Tools
7. Contract Reviews-3rd Party Providers
8. End User Education
9. End User Protection
10. Support (staffing, consultants)
11. Policies



NACo CYBER SECURITY PRIORITIES AND BEST PRACTICES

NACo | COUNTY TECH XCHANGE

Fighting cyberattacks in local government has become even more difficult in recent months due to attacks such as the SolarWinds breach and Microsoft Exchange (email) exploit, as well as the current pandemic environment and resulting increases in cloud adoption and remote work. These recent events coupled with the rise in ransomware, IoT devices and user credential harvesting, are raising the security bar for what counties need to implement and what they should be doing with end users as it pertains to cyber security. The National Association of Counties through the NACo Telecommunications and Technology Policy Steering Committee established the following priorities:

- Funding assistance in any form deemed necessary to provide for the information technology resources required to adequately provide security at all levels;
- Funding assistance for basic security awareness training of employees and advanced security training for information technology professionals within local government including assistance in the completion of advance certification and degree programs;
- Cooperative efforts in information sharing among all federal, state, and local governments in addition to private sector organizations regarding breaches, potential threats, threat levels, and any techniques that would assist in the prevention or mitigation of cyber related threats;
- Collaborative efforts in the form of committees or task forces that are inclusive of local government membership with federal agencies such as the Department of Homeland Security and subprograms such as NCC, US-CERT, and ICS-CERT;
- Creation of programs and initiatives that designate local government Cybersecurity liaisons and/or representatives that serve in conjunction with federal agencies such as the Department of Homeland Security

Further, in working with the NACo Tech Xchange, as well as national resources and other county IT leadership, it has become apparent how important funding and related resources are needed by counties. This is especially evident in the small to mid-size counties, who face the greatest challenges with implementing and maintaining cyber best practices. Specifically, the following are best practices that are the most important for county cyber needs that exist today to address the increasing onslaught of Cyber Attacks.

Cost | Cyber Defense Impact | Workload Effort

The icons represent the percentage of cost, impact on cyber defenses and workload effort needed to implement the priority. The more complete the outer circle of the icon is, the higher the percentage of cost, impact or workload, but also is dependent on current county circumstances.

MFA (Multi-Factor Authentication)

It is a proven fact that multi-factor authentication significantly decreases the amount of successful cyber-attacks on a county. Depending on the main technology platform that a county has implemented for end user authentication, will determine the cost, as well as time and resources needed. And let us not forget the education with end users. MFA solutions alone can run into hundreds of thousands of dollars, depending on the size of the county.

DMARC (Domain-based Message Authentication, Reporting and Conformance)

DMARC is an email authentication protocol. The percentage of local government implementing this security feature is on the low side. The main cost associated with DMARC is hiring the resource to handle implementation of the feature on a county's existing infrastructure or training current IT staff to do so.

Cyber Security Priorities and Best Practices — National Association of Counties (NACo) | Page 1

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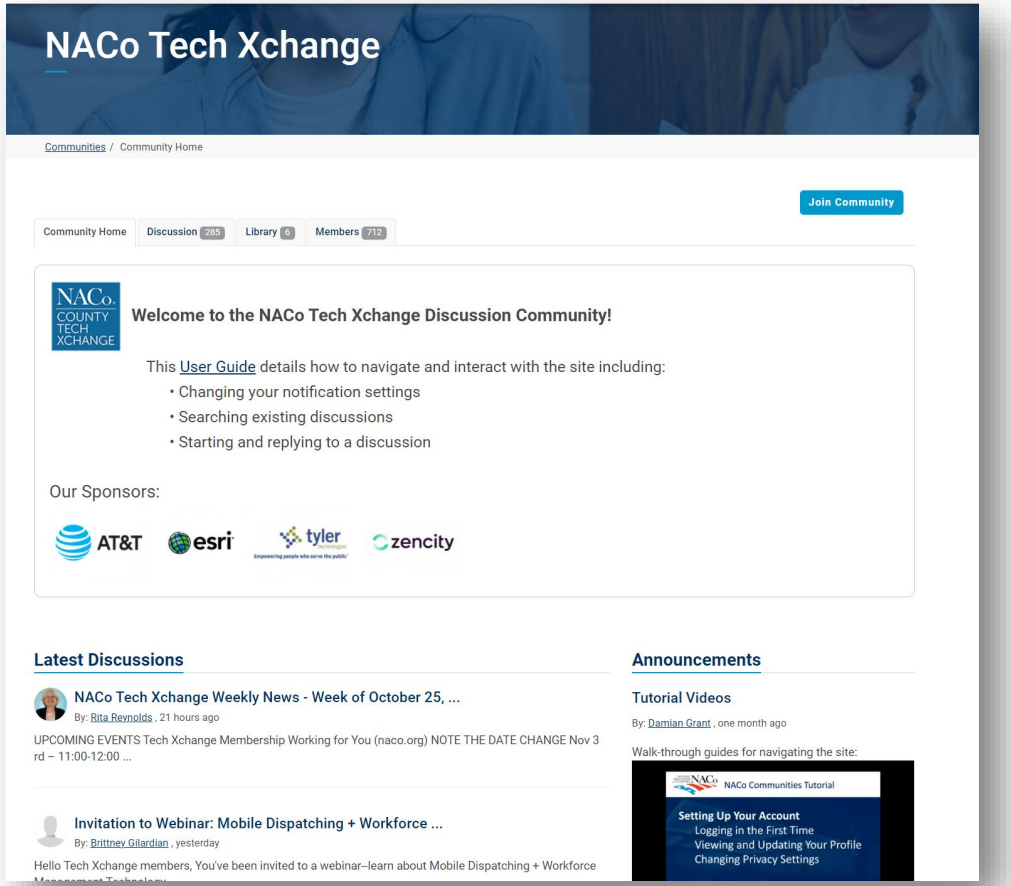
NACo Programs

- NACo Tech Xchange
  - Discussion Group
  - Portal
  - Focus Groups – toolkits
  - CIO Forums
- Open to County IT Leaders and other IT employees (GIS, security)



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NACo Programs – Cyber Guide for County Leadership

Five Areas

Cyber	GIS	Workforce talent	Budgeting	Tech Planning, Strategy
Detection	Use Cases and Investment	Flextime	Procurement	Projects
Prevention	Strategy	Benefits	Contracts	Priorities
Response	Policies and Data Sharing	Career Growth	Grants	Innovation

Top Ten Benefits Cyber

1. Increased security
2. Protection of residents
3. Lower Cyber Insurance Coverage
4. Protection of end users
5. Protection of data assets
6. Protection of the county brand
7. Protection of the website
8. Protection of the network
9. Protection of Election Equipment
10. Protection of Election Processes

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Cyber Guide for County Leadership Top Ten Questions

1. Does the County have a Board adopted Information Security Program in place to govern cyber risk management?
2. Does the county have Multi-Factor Authentication (MFA) in place?
3. Does our county have a security incident plan in place and is that plan part of the overall continuity of government plan?
4. What cyber-related issues have we experienced in the past year or key high-level findings that have been uncovered through an assessment, and what is our plan for addressing them?
5. Are there security initiatives which you believe are important to take on in the next several years? And does that involve new tools and funding? How can elected leadership support you in those?
6. Does our county have an employee security awareness training program in place? Tell me more.
7. Are our backups safe from a security threat and have we conducted exercises to test reinstalling data from backup?
8. How does our county ensure the cyber safety of county employees, contractors and others that connect to the network, especially in a remote environment?
9. Is our county using the cloud for hosting data and applications and how is that protected?
10. Why do we need cyber insurance and what are the current challenges?

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Tend to the Basics

Change Your Password

MFA

End User Training

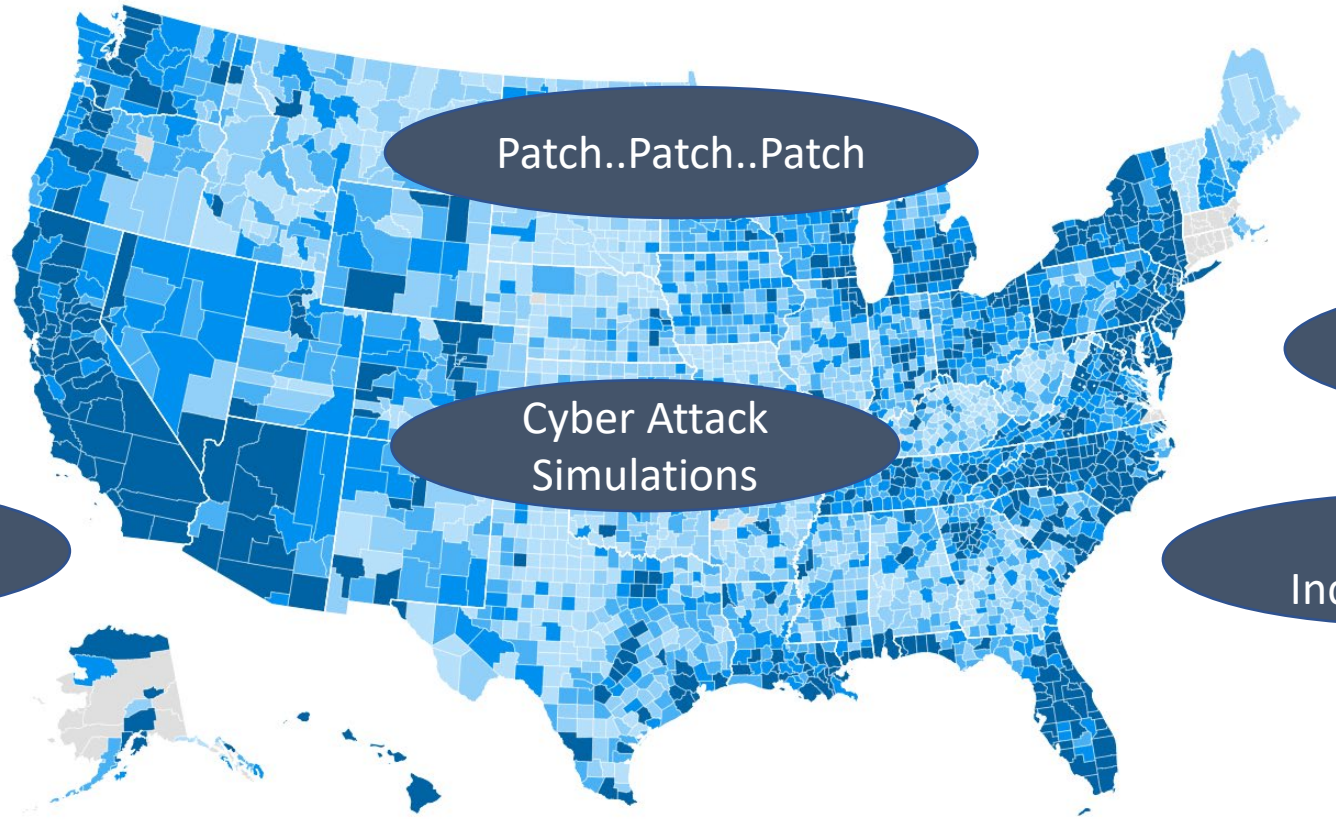
Patch..Patch..Patch

Cyber Attack Simulations

CISA

MS-ISAC

Security Incident Plan



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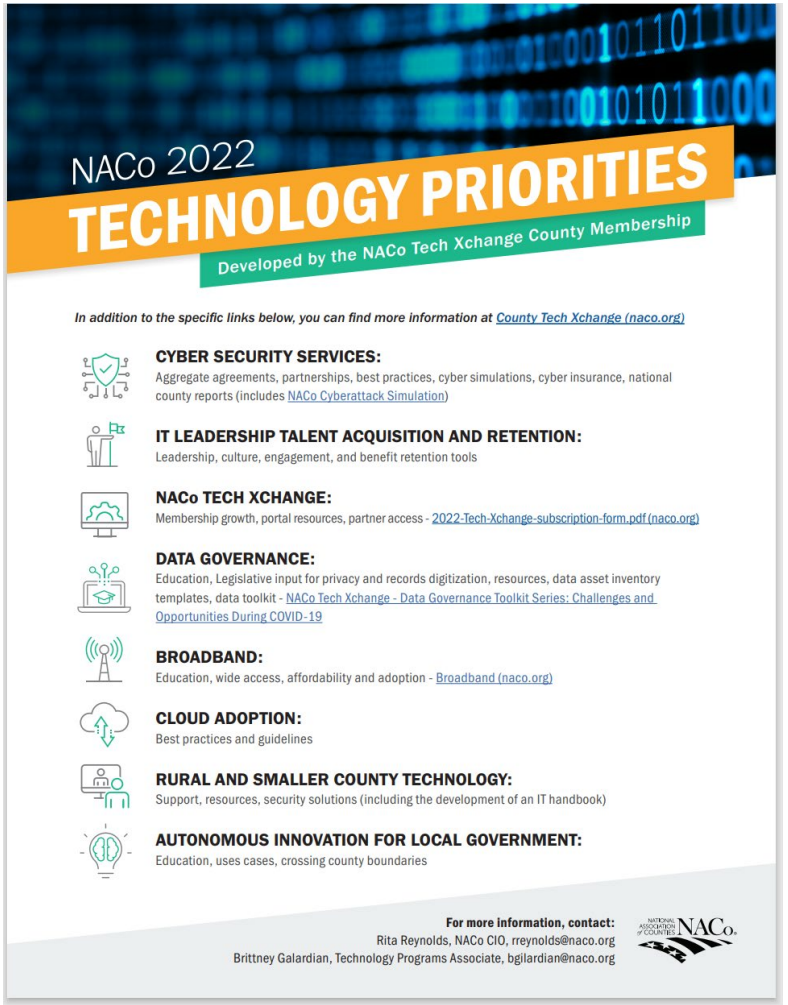
NACo 2022 Technology Priorities



NACo Programs

- Cyber Attack Simulation Series
  - Nov 29 – Dec 1
  - County staff encouraged to participate (IT, CAO, County Exec, HR, etc.)
- 2022 Cyber Simulations
  - March 14 - 18, 2022 | Ransomware on 911 Systems and Backup Systems
  - June 13 - 17, 2022 | Counterfeit Websites/Website Defacement
  - September 19 - 23, 2022 | Waste Management, Water Treatment and Recycling Centers
  - November 14 - 18, 2022 | Procurement Without IT Support

Thank You

Questions?

Rita Reynolds, CIO, NACo

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Fireside Chat with Kevin Gallagher, Department of Commerce

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Fireside Chat with Kevin Gallagher, Department of Commerce

What's the latest from the FCC?

What's the latest from the FCC?

Click to Watch FCC Presentation

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Federal Policy Update

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Telecommunications & Technology Business Meeting

Interim Policy Resolution Consideration

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Thank you!

See you at Happy Hour: 6:30pm @ the LINE Hotel, 1770 Euclid St. NW