



# Celebrating 50 Years of Cybersecurity at NIST

*NCCoE Learning Series Webinar*  
*[nccoe.nist.gov](https://nccoe.nist.gov)*

29 September 2022 | 3:00 p.m. ET

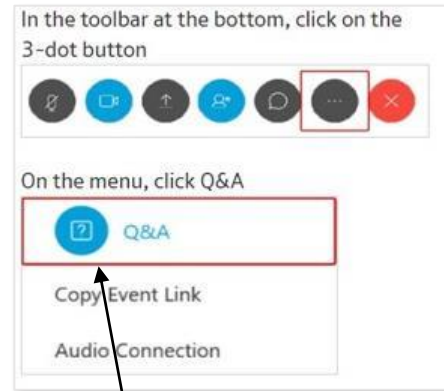


*This webinar is being recorded*

Celebrating 50 years of Cybersecurity at NIST

# Submitting Questions

Please use the Q&A window to enter your questions.



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2. Type your question in the text box and click Send

# Featured Speaker

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## **Kevin Stine,**

Chief, Applied Cybersecurity Division,  
NIST Information Technology  
Laboratory (ITL), Chief Cybersecurity  
Advisor and Associate Director for  
Cybersecurity, NIST ITL

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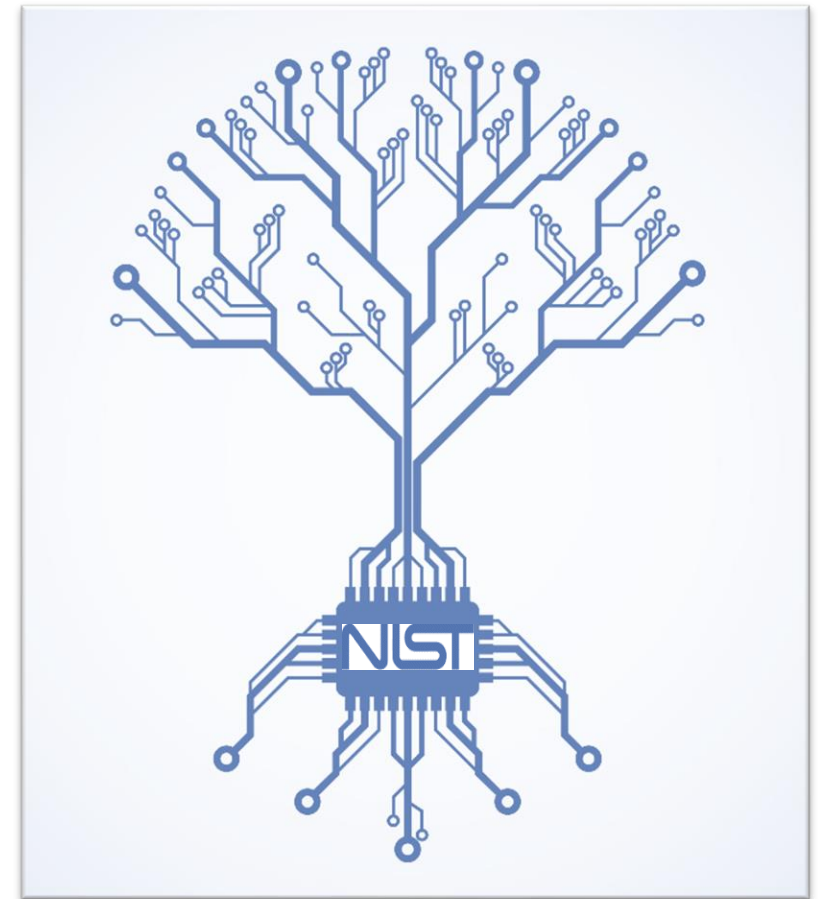
# Celebrating our 50<sup>th</sup> Anniversary

## What will we cover today?

- Share some of NIST's contributions to the field of cybersecurity over the last 50 years—**where we've been**.
- Look to the future of cybersecurity at NIST—**where we're going**.
- Share how you can **participate** in the anniversary celebration
- Highlight NIST's upcoming **Cybersecurity Awareness Month** and **Cybersecurity Career Awareness Week** activities.

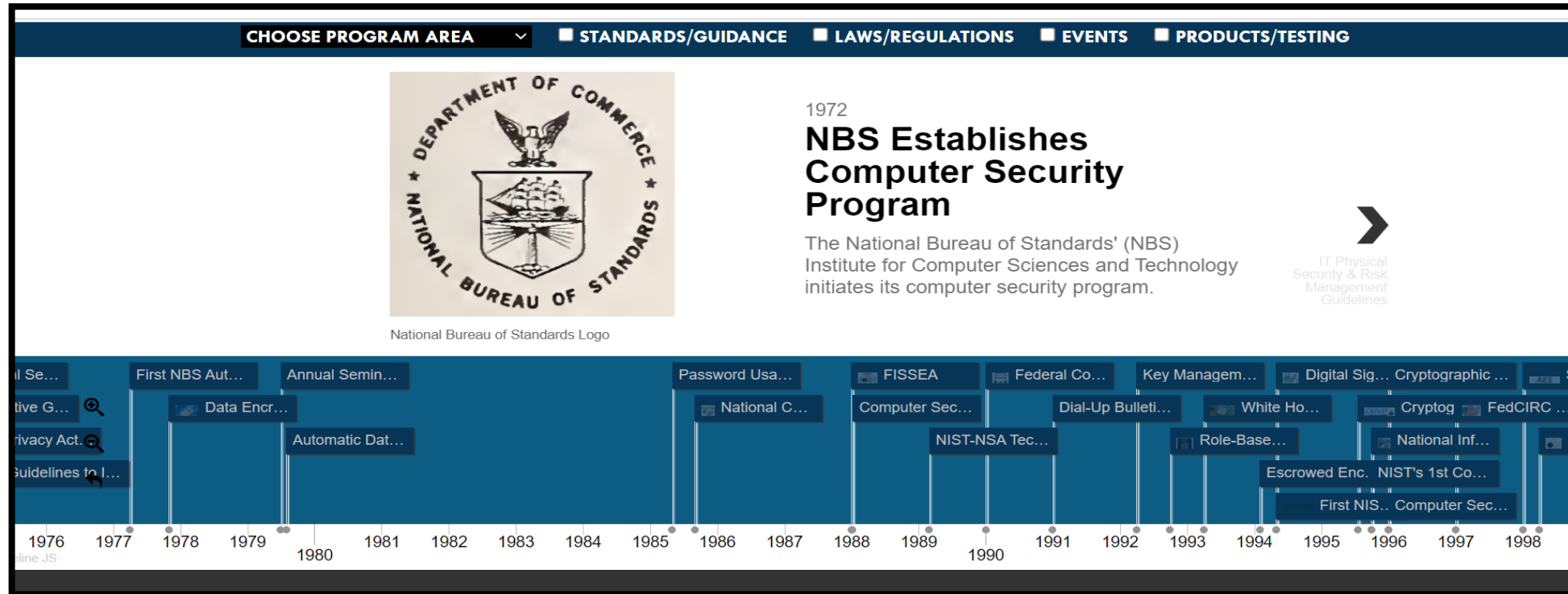
# Celebrating our 50<sup>th</sup> Anniversary

We **cultivate trust** by advancing  
cybersecurity & privacy **standards &  
guidelines, technology, &  
measurement science.**



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## NIST Cybersecurity Program History & Timeline



<https://csrc.nist.gov/nist-cyber-history>

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## Looking back at **where we've been**



**1972** | The National Bureau of Standards (NBS) establishes a Computer Security Program.

**1974** | NBS publishes its first guide: the pocket *Executive Guide to Computer Security*, intended for executives and published at a time when only about 130,000 computers were installed across the entire United States.

**1977** | NBS releases the *first authentication publications*—guidelines for authenticating users long before most people had ever used a computer.

**1977** | NBS publishes the Data Encryption Standard (DES) – the first standardized encryption algorithm.



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## Looking back at **where we've been**



**1981** | Contingency Planning Guide – “FIPS 87” was an early guide to assist federal agencies in creating contingency plans for their computer systems.

**1985** | A Password Usage Standard is published: “FIPS 112” included many concepts still considered in today’s user authentication systems.

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## Looking back at **where we've been**



**1992** | Role-Based Access Control (RBAC) is introduced by NIST. This has a significant impact on how access control is implemented in computer systems.

**1996** | NIST launches FedCIRC—the Federal Computer Incident Response Capability—which offered federal agencies incident response services and other cybersecurity capabilities, and eventually became US-CERT.

**1997** | NIST announces its intention to develop a publicly disclosed Advanced Encryption Standard (AES) to replace DES.

**1999** | NIST begins vulnerabilities tracking and analysis with the Internet - Categorization of Attacks Toolkit (ICAT). Becoming the National Vulnerability Database (2005), it now sustains the global vulnerability management ecosystem.

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## Looking back at **where we've been**



**2004** | NIST issues the Risk Management Framework (RMF), a continuous approach to managing cybersecurity risk throughout the system development lifecycle (used widely by federal agencies and others).

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## Looking back at **where we've been**



**2012** | NIST launches the National Cybersecurity Center of Excellence (NCCoE) in partnership with the State of Maryland and Montgomery County.

**2014** | With major input from the private and public sectors, NIST publishes the Cybersecurity Framework 1.0. The initial version is released as voluntary guidance for critical infrastructure organizations and now is used widely in the U.S. and abroad across many sectors. *Federal agencies now are required to use the Framework.*

**2016** | NIST's Post-Quantum Cryptography Standardization effort begins.

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## Looking back at **where we've been**

**2020** | NIST's Privacy Framework 1.0 is published after extensive consultation with the private and public sectors.



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## Looking to the future...where we're going

- Cryptography
- Risk Management & Measurement
- Cybersecurity Education & Workforce Development
- Identity & Access Management
- Privacy Engineering
- Trustworthy Networks and Platforms



[www.nist.gov/cybersecurity](http://www.nist.gov/cybersecurity)

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## Join the celebration!

- Dedicated anniversary website
  - Info, resources, events, videos
- Special blog series
- @NISTcyber Twitter coverage
  - #NISTcyber50th
- GovDelivery blasts

The screenshot shows a webpage titled "CYBERSECURITY" with a green header. On the left, a blue sidebar contains a "50th Anniversary of Cybersecurity at NIST" section with links for "50th Anniversary Blogs", "50th Anniversary Events", and "50th Anniversary Resources". The main content area features a large banner with the NIST logo and the text "National Institute of Standards and Technology U.S. Department of Commerce" and "Celebrating 50 years of Cybersecurity at NIST". Below the banner is a paragraph of text: "For 50 years, NIST—formerly the National Bureau of Standards (NBS), until 1988—has conducted cybersecurity research and developed cybersecurity guidance that has led to extraordinary advancements in cybersecurity. Because of NIST's collaborative and exhaustive efforts, our work has helped better secure the state of technology that exists today—while providing the platform for the secure technology development of tomorrow." At the bottom, there is a light blue button with the text "[NIST Cybersecurity Program History and Timeline](#)".

[www.nist.gov/cybersecurity/50th-anniversary-cybersecurity-nist](http://www.nist.gov/cybersecurity/50th-anniversary-cybersecurity-nist)

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## Cybersecurity Awareness Month

[Get Involved](#)

[Key Behaviors](#)

[Resources](#)

[Events/Theme Days for  
October 2022](#)

[Cybersecurity Awareness Month](#) — celebrated every October — was created in 2004 as a collaborative effort between government and industry to ensure every American has the resources they need to stay safer and more secure online. NIST has partnered with other federal agencies to help raise awareness about cybersecurity and engage with public and private sector partners through events and initiatives to raise awareness about cybersecurity, provide them with tools and resources needed to stay safe online, and increase the resiliency of the Nation in the event of a cyber incident. Let's remember to **#BeCyberSmart**.

This year, the focus is on four key behaviors throughout the month:

1. [Enabling multi-factor authentication](#)
2. [Using strong passwords and a password manager](#)
3. [Updating software](#)
4. [Recognizing and reporting phishing](#) |



[www.nist.gov/cybersecurity/cybersecurity-awareness-month](https://www.nist.gov/cybersecurity/cybersecurity-awareness-month)

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## Cybersecurity Career Awareness Week (10/17 – 10/22)

**Cybersecurity Career  
Awareness Week**  
October 17-22, 2022

What is Cybersecurity  
Career Awareness Week?

Events and Activities



Resources



Cybersecurity in Your  
Community

Discovering Cybersecurity  
Careers

Ideas for Engagement

Past Events

## Cybersecurity Career Awareness Week October 17-22, 2022



[www.nist.gov/itl/applied-cybersecurity/nice/events/cybersecurity-career-awareness-week](http://www.nist.gov/itl/applied-cybersecurity/nice/events/cybersecurity-career-awareness-week)

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# Upcoming NCCoE Events



**October 6:** Path to End-to-End (E2E) Protocols for Voting Systems

**October 19:** Preparing for Careers in Cybersecurity and Privacy with Internships

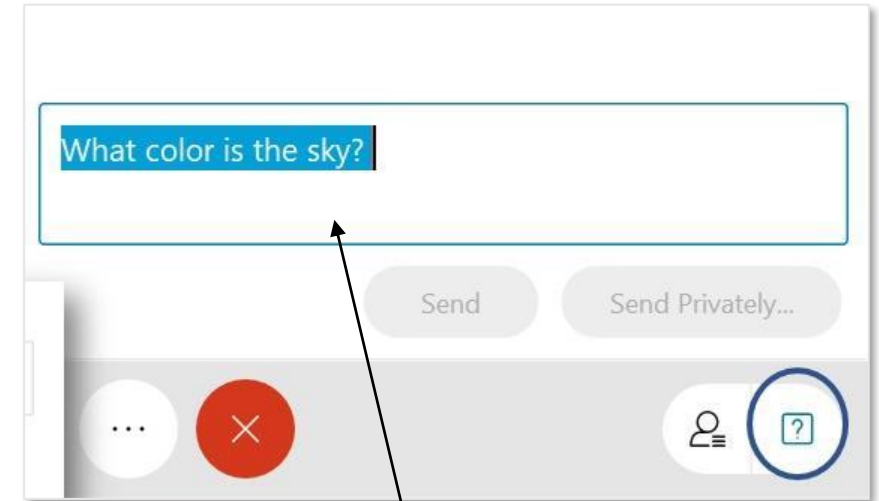
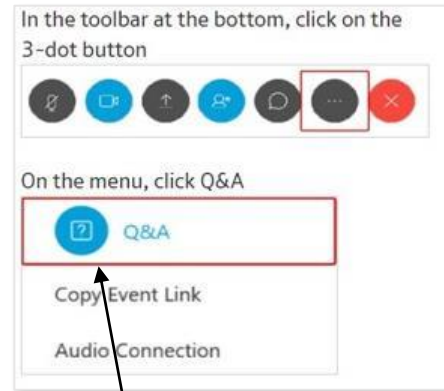
**October 20:** NCCoE Celebrates CyberWeek with Students and Faculty

**View event descriptions and register here:**

[www.nccoe.nist.gov/get-involved/attend-events](http://www.nccoe.nist.gov/get-involved/attend-events)

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