Cyber Volunteering and Community Defense

DEF CON Franklin and the Cyber Resilience Corps

CYBER RESILIENCE CORPS

PROTECTING COMMUNITIES TOGETHER

USA



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CYBER RESILIENCE CORPS USA

What you'll learn today

- Why cyber volunteering is so essential in 2025 and beyond
- Progress and lessons learned from two leading cyber volunteering initiatives
  - CyberPeace Builders Program
  - DEF CON Franklin
- Hear from a real volunteer about their experience
- Most high-impact ways to contribute to cyber volunteering

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Why do we need cyber volunteers?

They fill a market gap for community organizations.







US counties susceptible to insecure authorization

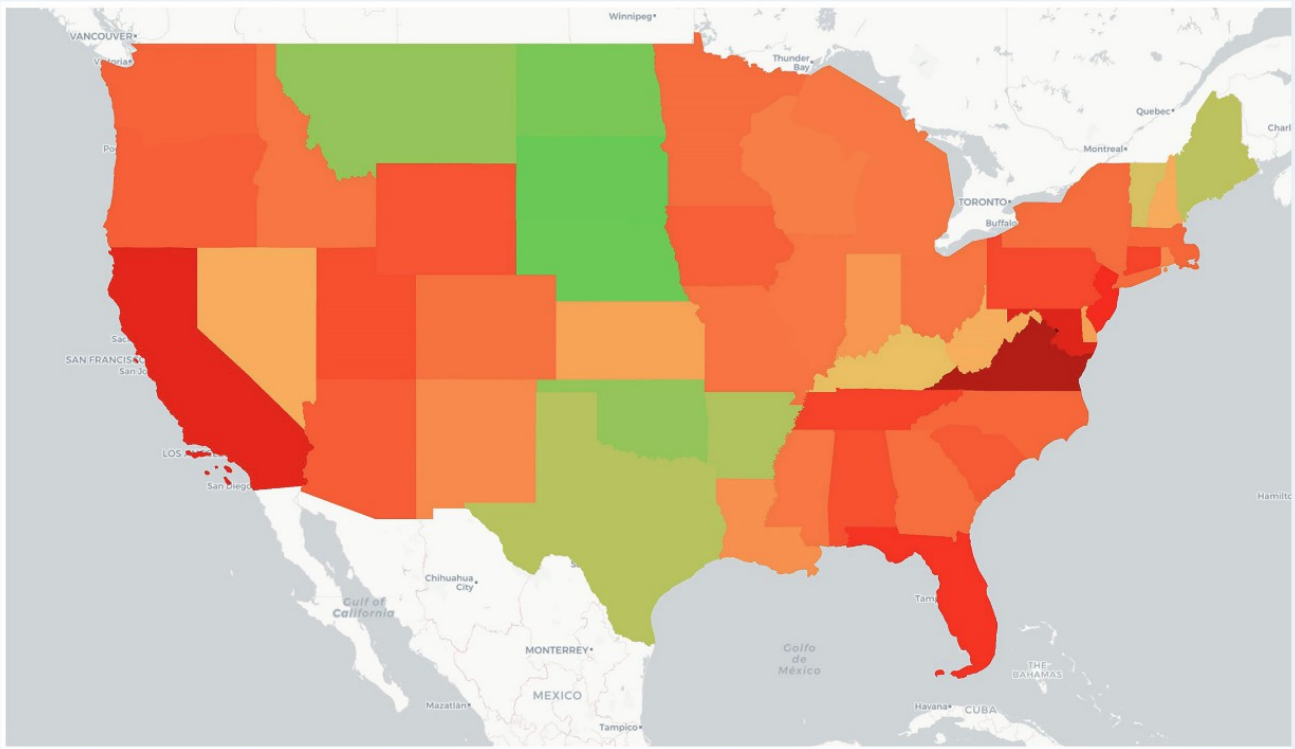

Figure 1:

Percentage of counties within U.S. states that are potentially susceptible to insecure authorization.[4] Such data represents a useful but imperfect proxy for the cyber risks facing community organizations.

Source: Harry, Charles, et al. "Measuring the Size and Severity of the Integrated Cyber Attack Surface across US County Governments." Journal of Cybersecurity, vol. 11, no. 1, Jan. 2025, p. tyae032. Silverchair. Licensed under CC BY-NC-ND.

Heightened Risk:
Rural residents and people experiencing poverty

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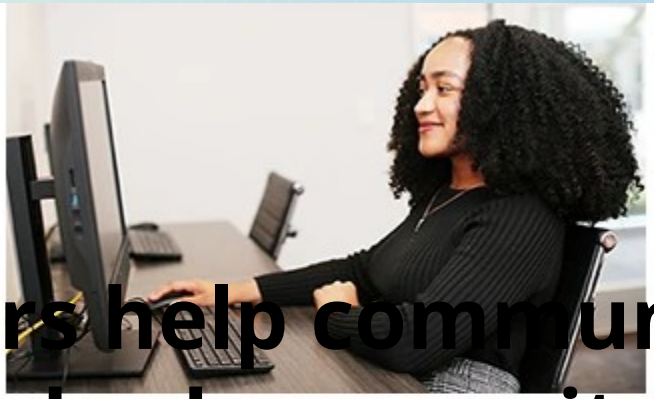
1. **More likely to be served by small, at-risk organizations**, which tend to be more vulnerable to cyberattacks.

2. **Less likely to be able to find services elsewhere** when an organization that serves them is hit with a cyber attack.

Cyber volunteers help community orgs that can’t afford cybersecurity











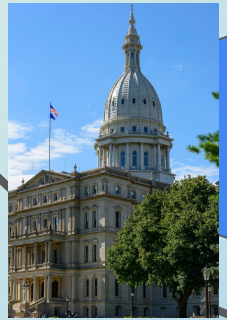


Images courtesy of Google.org and Stillman College

Introducing the Cyber Resilience Corps:
Joining forces to do more



Cybersecurity Clinics



State Cyber Corps

Nonprofit Programs



Nationwide Cyber Volunteering Data

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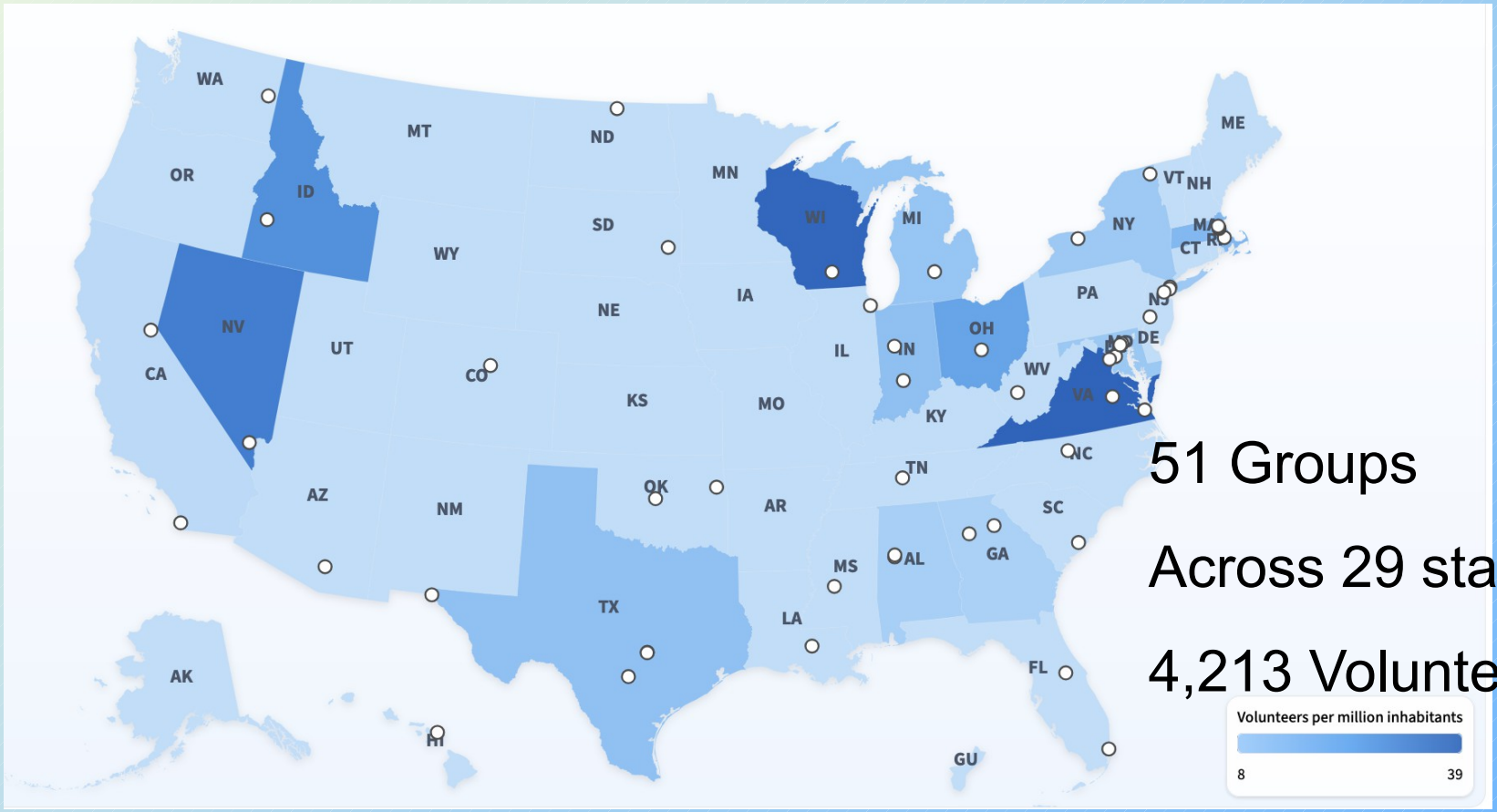

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We are connecting

Volunteers <-> Programs <-> Beneficiaries

on cybervolunteers.us

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PLATFORM DEMO

cyber peace builders

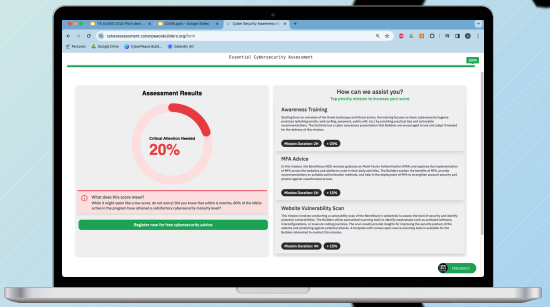
by the

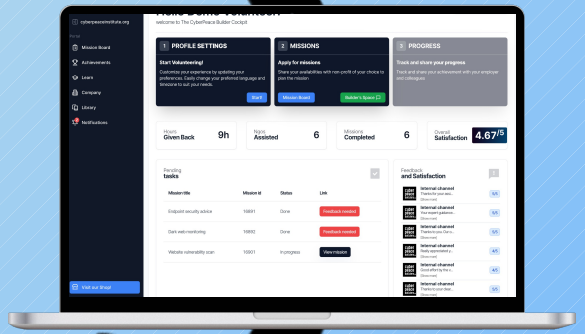


CyberPeace Institute

cyber peace builders. by the CyberPeace Institute

A GLOBAL MATCHMAKING PLATFORM BETWEEN CORPORATE CYBERSECURITY VOLUNTEERS AND NONPROFITS





cyber peace builders. by the CyberPeace Institute

WHY CORPORATE VOLUNTEERS?

Biggest talent pool

Effective vetting

Corporate Social Responsibility

Talent Retention

Talent Attraction

WHY NONPROFITS?

Because of what they do

Because of what they know

Because of what they have

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IMPACT METRICS

34 mission types
544 employers
596 nonprofits
1,527 volunteers
1,711 missions done
3,437 support hours

Oxfam, Amnesty, United Way, Doctors Without Borders, International Rescue Committee, SOS Children's Villages...

Adobe, Capgemini, Cloudflare, HPE, Mastercard, Marsh, Microsoft, Splunk, Okta, Logitech...

UNIQUE CHALLENGES TO SCALING-UP SUCH A PROGRAM



Nonprofit startup mentality, traditional fundraising vs SaaS

Free but not costless, IT, travel…

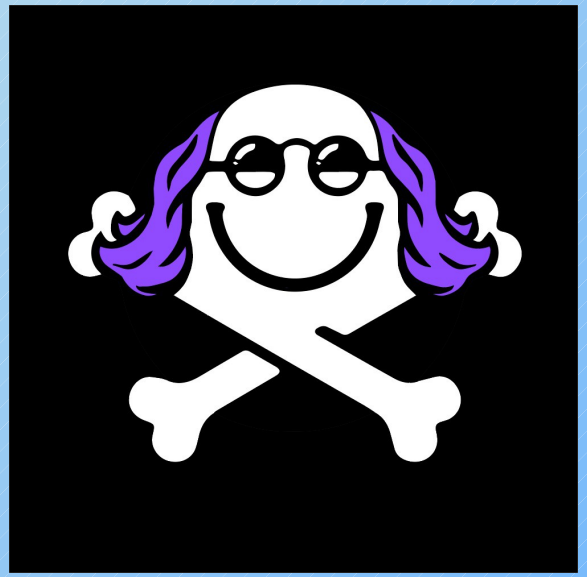
Engaging non-paying customers

Responding to urgency

Risk management, liability protection, data protection, legal

Big community management

DEF CON *Franklin:* Our First Year



WHAT IS DEF CON *FRANKLIN?*

***Franklin* is a partnership between…**



National Rural
Water Association



University of Chicago
Cyber Policy Initiative



DEF CON

With generous support from Craig Newmark Philanthropies

WHAT IS DEF CON *FRANKLIN*?



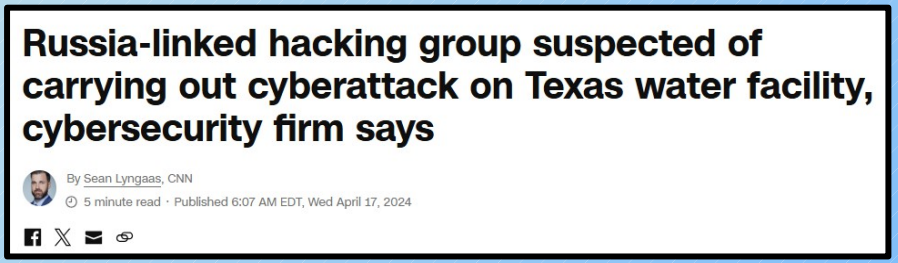
DEF CON Hackers' Almanack

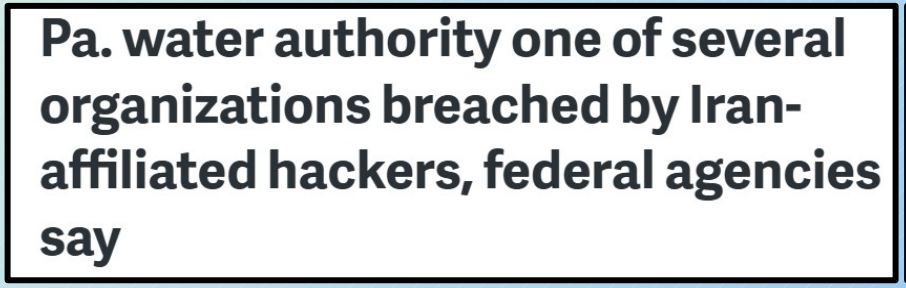


Cyber Volunteer Task Force

WHY WATER?


US warns hackers are carrying out attacks on water systems
By Raphael Satter
March 20, 2024 3:37 PM EDT · Updated a year ago


Russia-linked hacking group suspected of carrying out cyberattack on Texas water facility, cybersecurity firm says
By Sean Lyngaas, CNN
5 minute read · Published 6:07 AM EDT, Wed April 17, 2024


Pa. water authority one of several organizations breached by Iran-affiliated hackers, federal agencies say


CYBERSECURITY ADVISORY
PRC State-Sponsored Actors Compromise and Maintain Persistent Access to U.S. Critical Infrastructure

LATEST ON FRANKLIN



In our first year, *Franklin* established partnerships with water and wastewater systems **across four states**:
Indiana, Oregon, Utah, and Vermont.

We continue to seek and establish partnerships in other states and territories.

CHALLENGES AND TAKEAWAYS



Local Constraints

Challenge:
Budgetary limitations lead to traditional plant operations being prioritized over cyber

Takeaway:
We can't solve this without experts to help "bridge the gap"

Capacity Limits

Challenge:
Given little bandwidth for cyber, systems cannot implement free resources

Takeaway:
We need resources and people to deploy and manage them

DEF CON > Feds

Challenge:
Federal support is notoriously slow, and even less likely with this Administration

Takeaway:
Again, this community & philanthropy will be the ones to step up

Unique Systems

Challenge:
Water is extremely trust-based, and it takes time to establish connections

Takeaway:
We need trusted partners on the ground to solve this at scale

We need a nationwide cyber model for water systems…



Hear from a Volunteer:

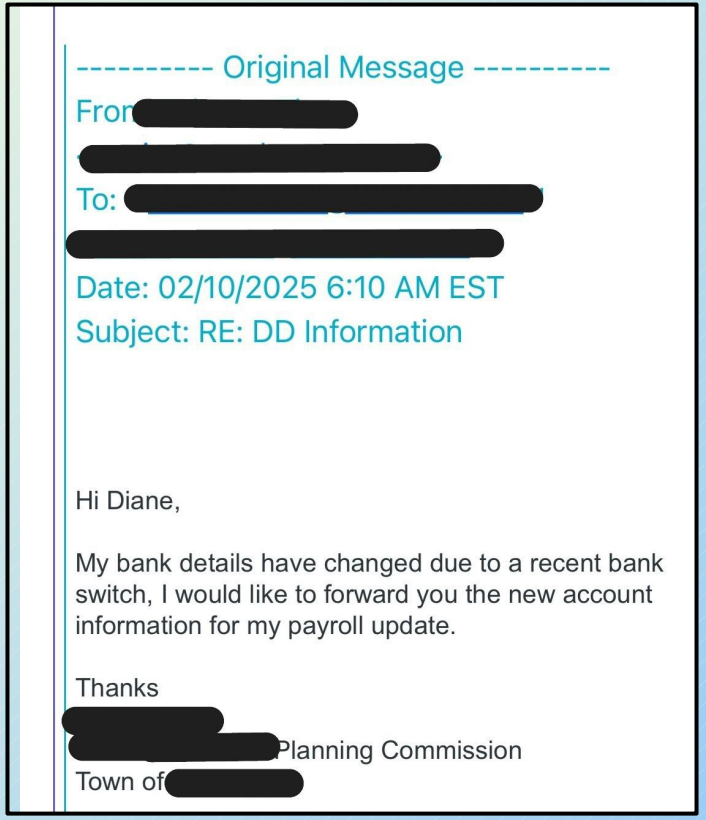
Jonathan Farley

DEF CON Franklin
& CyberPeace Builders
Volunteer

“WHY ME?”

1. Small organizations may believe that they **fly under the radar.**
2. “I understand the need for robust security. **But, who would want to attack us?”**
3. Demystify threat actors to dismantle **false assumptions**.
   - Opportunists. Ransomware crews. Insiders. Nation-state actors.

WAR STORY



---------- Original Message ----------

From: [redacted]

To: [redacted]

Date: 02/10/2025 6:10 AM EST

Subject: RE: DD Information

Hi Diane,

My bank details have changed due to a recent bank switch, I would like to forward you the new account information for my payroll update.

Thanks

[redacted] Planning Commission

Town of [redacted]

"I... recently submit(ted) an initial Business Email Compromise email attempt targeting their water utility to IC3... ***The email is very impressive, because it masquerades as that town of 500 or so people's only ethnic Chinese town official. I was surprised, frankly.***"

Franklin volunteer Tim Pappa

Case Study:
Utah Water Utility Engagement

CyberPeace Builders Program:
NGO Missions

CLOSING REMARKS

Take Action - High-Need Opportunities for Impact

- We need more nonprofit cyber volunteering organizations for people to join, especially in different regions
- Talk to your company about donating funds or signing volunteer agreements
- Join up - visit cybervolunteers.us to find a program near you
- Spread the word! Make sure your local organizations know that cybervolunteers.us is a resource

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cyber peace builders

by the CyberPeace Institute

LIVE Q&A