

Trusted CI Welcome

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NSF Cybersecurity Summit

October 24, 2023

Welcome to the 2023 Summit

190 in person attendees

131 virtual attendees

>50% first time attendees (red circle on badges)

#summit-23_community_ Slack channel

Code of Conduct

- <https://www.trustedci.org/code-of-conduct>
- We aim to foster and provide a welcoming environment of mutual respect for all people
- Please report any concerns/incidents to:
 - Kelli Shute (kelshute@iu.edu)
 - Jim Basney (jbasney@illinois.edu)

2023 Summit Program Committee

Jim Marsteller (Chair)
Fatema Bannat Wala
Damian Clarke
Chris Morrison
Anita Nikolich
Sean Peisert
Victor Piotrowski
Rick Wagner

2023 Summit Organizers Committee

Diana Cimmer
Leslee Bohland
Jim Marsteller
Jeannette Dopheide
Sean Peisert
Jason Salinas
Kelli Shute
Jim Basney

Thanks to Berkeley Lab

Jason Salinas

Sean Peisert

... and the rest of the Berkeley Lab team

Welcome Student Program Participants

Chad Calligari – University of South Alabama

Matheu Fletcher – University of Illinois at Urbana-Champaign

Robert Johnson – The University of Tennessee at Chattanooga

Kaneesha Moore – Mississippi State University

Kennedy Moore – Clark Atlanta University

Ololade Odunsi – University of New Haven

Henry Schmidt – University of Arkansas

Nathalia Soares – Louisiana State University

Aman Thanvi – University of Maryland, College Park

... And members of Berke1337 – UC Berkeley's cyberclub



Co-located Sessions/Meetings This Week

- ACCESS CONECT Cybersecurity
<https://operations.access-ci.org/pub/cybersecurity>
- Jupyter
<https://jupyter.org/security>
- SAFER
<https://www.safer-trust.org/>
- Trusted CI Framework Community of Practice
<https://www.trustedci.org/framework>
- WISE Community
<https://wise-community.org/>
- Zeek
<https://zeek.org/>

Attendee Survey

- Please provide your input for next year's Summit
 - You'll receive the survey link via email & Slack
- Takeaways from last year's survey included:
 - Hybrid mode more interactive and extended to workshops
 - Extend meeting to 4 days
 - Shorter workshop/training sessions
 - New workshop/training topics (e.g., Zeek, Jupyter)
 - Add a poster session
 - Location that is easier to travel to

Next Year's NSF Cybersecurity Summit

- September 2024
- Location: TBD
- Would you be interested in working with us to host the 2024 Summit?
- Would you like to serve on the Program Committee?
- Contact: info@trustedci.org

Addressing Threats

Announcements

ALMA Successfully Restarted Observations

19 December, 2022 / Read time: 2 minutes

Forty-eight days after suspending observations due to a cyberattack, the Atacama Large Millimeter/submillimeter Array (ALMA) is observing the sky again. The computing staff has worked diligently to rebuild the affected observatory's computer system servers and services. This is a crucial milestone in the recovery process.

Telescope Operations Restored After Cybersecurity Incident at NSF's NOIRLab

Gemini North and Gemini South are taking science data

29 September 2023



Gemini North and Gemini South telescopes (the twin telescopes forming the International Gemini Observatory) are now back on sky following the 1 August cybersecurity incident at NSF's NOIRLab, and are currently collecting science data. Restoration of remote access for external astronomers is ongoing, and we anticipate that it will be restored over the coming weeks.

[TLP:RED] session on Thursday provides a forum for discussing restricted disclosure topics - open to all Summit attendees - see: <https://www.first.org/tlp/>

HPC Security

- NIST HPC Security Working Group
- Trusted CI Framework Cohort:
 - NCSA, PSC, SDSC, TACC, UCAR
- S-HPC @ SC23



<https://csrc.nist.gov/Projects/high-performance-computing-security>

NIST Interagency Report
NIST IR 8476

3rd High-Performance Computing Security Workshop

Joint NIST-NSF Workshop Report



NIST Special Publication
NIST SP 800-223 ipd

High-Performance Computing (HPC) Security:

Architecture, Threat Analysis, and Security Posture

Initial Public Draft

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Rickey Gregg
Gary Key
Antwan Clark
Catherine Hinton
Andrew Prout
Albert Reuther
Ryan Adamson
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This publication is available free of charge from:
<https://doi.org/10.6028/NIST.SP.800-223.ipd>

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This publication is available free of charge from:
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September 2023



U.S. Department of Commerce
Gina M. Raimondo, Secretary

National Institute of Standards and Technology
NIST Director and Under Secretary of Commerce for Standards and Technology



2023 Annual Challenge: Security by Design

- Support acceptance testing of the NSF-funded Research Class Research Vessels (RCRVs) at Oregon State University
- Support Scripps Institution of Oceanography's design of the California Coastal Research Vessel (CCRV)
- Support the Ocean Observing Initiative (OOI)'s refresh of its fleet of 351 gliders and other underwater autonomous vehicles (AUVs)
- Research the U.S. Antarctic Program (USAP)'s design of the Antarctic Research Vessel (ARV) and refresh of McMurdo, Palmer, and Amundsen-Scott South Pole Stations
- More details: Thursday morning panel session



U.S. Antarctic
Program



OOI
OCEAN
OBSERVATORIES
INITIATIVE



U.S. Academic
Research Fleet



Trusted CI's 5 Year Vision

- Continued adoption of Trusted CI Framework for cybersecurity programs
- Maturity models for software and operational technologies
- Engagement via residencies, cohorts, and communities of practice
- Security By Design during new/refreshed construction/development/acquisition
- Developing the workforce and broadening participation
- <https://doi.org/10.5281/zenodo.8193607>
- Thanks for your feedback! Additional input welcome via email to kelshute@iu.edu



A Vision for Securing NSF's Essential Scientific
Cyberinfrastructure — Trusted CI Five-Year
Strategic Plan (2024–2029)

Five-year Strategic Plan

August 1, 2023

Working Draft

Distribution: Public

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Scott Russell, and Kelli Shute

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Trusted CI activities are made possible thanks to the contributions of a multi-institutional team:
<https://trustedci.org/who-we-are/>