Journey to the National Institute of Standards & Technology **Cybersecurity Framework 2.0**



NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE



American **APTA** Public Transportation Association

May 29, 2024

Housekeeping

Mute when not speaking. •



Reactions

Chat

- If you do speak, share your name and agency. 3
- Raise your hand to speak.
- Use the chat box to ask questions or to • share links and information.



Raise Hand



Business Members

The Business Members Cyber Committee educates and shares knowledge and experience about recognizing and better managing the opportunities and risks associated with new technology.





Moderator

Scott Belcher President and Chief Executive Officer SFB Consulting, LLC <u>scottfbelcher@gmail.com</u>





Panelists



Nakia Grayson

IT Security Specialist

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Department of Commerce



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National Institute of Standards and Technology

Department of Commerce



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National Institute of Standards and Technology

Department of Commerce



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National Institute of Standards and Technology

Department of Commerce



Securing the Road Ahead with the Cybersecurity Framework 2.0

Amy Mahn, Nakia Grayson, Daniel Eliot, Jeff Marron Applied Cybersecurity Division May 2024



Agenda

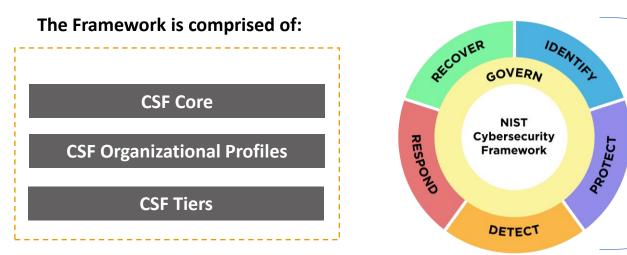




- Introduction
- Brief Overview of CSF 2.0
- CSF Community Profiles
- Overview of the CSF 2.0 Small Business Quick Start Guide
- Additional CSF 2.0 Resources
- How to Get Involved



NIST has updated the widely used Cybersecurity Framework (CSF)—its landmark guidance document for **reducing cybersecurity risk**.



Together, these six Functions provide a comprehensive view for managing cybersecurity risk.

How Did We Get Here?





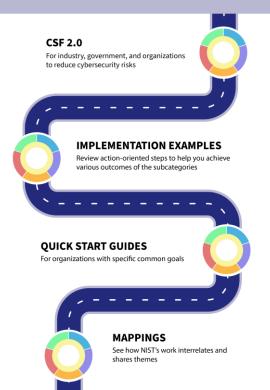
Visit our CSF 2.0 Website: www.nist.gov/cyberframework

CSF 2.0 | What Makes it Different?

- Expanded scope beyond critical infrastructure. CSF 2.0 can help **all organizations** manage and reduce risks.
- Addition of a 6th Core Function "Govern."
- Increased emphasis on supply chain risk management.
- Formalized the term "Community Profiles."
- Improves on prior versions; we listened to your feedback, made key updates, developed new resources and tools, and adjusted our guidance based on today's cybersecurity environment.

TRAVELING THROUGH NIST'S

CYBERSECURITY FRAMEWORK (CSF) 2.0 RESOURCES







"The CSF has been a vital tool for many organizations, helping them anticipate and deal with cybersecurity threats. CSF 2.0, which builds on previous versions, is not just about one document. It is about a suite of resources that can be customized and used individually or in combination over time as an organization's cybersecurity needs change and capabilities evolve."

~ Laurie E. Locascio

Under Secretary of Commerce for Standards and Technology & NIST Director

Global Impact of CSF 2.0





- The CSF is used widely internationally.
- CSF versions 1.1 and 1.0 have been translated into 13 languages (*CSF 2.0 translations anticipated soon*).
- NIST's work with the International Organization for Standardization (ISO), in conjunction with the International Electrotechnical Commission (IEC), over the last 11 years has been expansive.
- The resources allow organizations to build cybersecurity frameworks and organize controls using the CSF Functions.

Learn About Our Global Impact: https://www.nist.gov/cybersecurity/international-cybersecurity-and-privacy-resources



Overview of Community Profiles



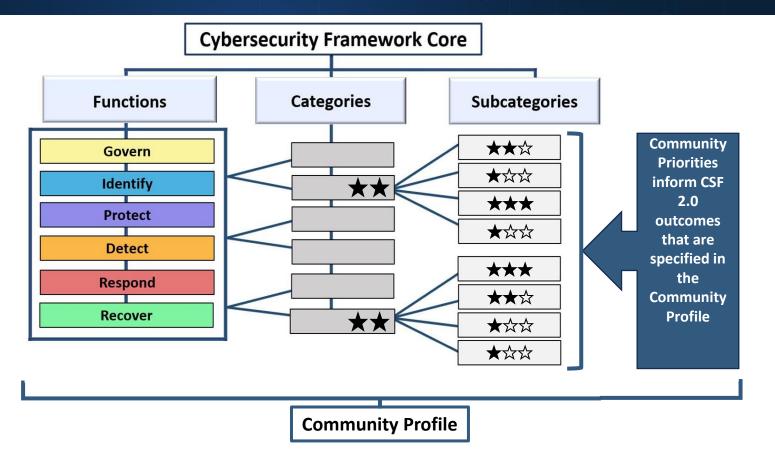


Organizational Profiles: describes an organization's current and/or target cybersecurity posture in terms of the Core's outcomes.

- Used to understand, tailor, assess, prioritize, and communicate the Core's outcomes by considering an organization's mission objectives, stakeholder expectations, threat landscape, and requirements
- Current Profile: specifies the Core outcomes that an organization is currently achieving (or attempting to achieve) and characterizes how or to what extent each outcome is being achieved
- **Target Profile:** specifies the desired outcomes that an organization has selected and prioritized for achieving its cybersecurity risk management objectives
- Community Profiles: describes CSF outcomes to address shared interests and goals among multiple organizations

Community Profiles





Benefits of Community Profiles













Use **shared taxonomy** for cybersecurity in the context of the community Align requirements from multiple sources Leverage expertise across the community Encourage common target outcomes Minimize the burden by working together

Communicate

about cybersecurity risk

Examples of Community Profiles





CSF 1.1 Profiles

- eXtreme Fast Charging (XFC)
- Genomic Data (draft)
- Hybrid Satellite Networks (HSN)
- Ransomware

CSF 2.0 Profiles

- CRI Profile for the Financial Sector
- Incident Response

https://www.nccoe.nist.gov/framework-resource-center

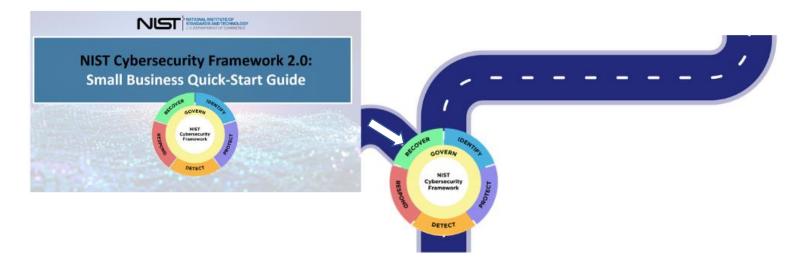


Resources for CSF 2.0





NIST CSF 2.0 Small Business Quick Start Guide as an On-Ramp to the CSF 2.0 Journey



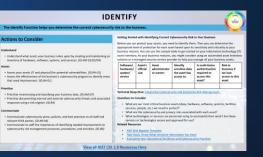
View full CSF 2.0 SMB Quick Start Guide: https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1300.pdf

Creation of CSF 2.0 SMB QSG

- There was a clear desire for an actionable, accessible CSF resource for smaller entities.
- Not limited to only small businesses.
- Leveraging Implementation Examples as content for "Actions to Consider."
- Focus on usability and readability.
- Focus on a limited number of high priority items that an under-resourced organization can implement.



GOVERN ent strategy, expectations, and polis flettine Started with Coherenceity Enversance You can use these tables to begin thinking about your Setting Organiz List your legal requirements Understand your legal, regulatory, and contractual sybervecurity requirements, /0/cOC-05 List your regulatory indenstand who within your business will be responsible for developing and executing the What cybersecurity risk unity strategy (GVAN-02) Technical Deep Dive: Sta Assess the potential impact of a total or partial loss of critical business assets and operations, (GV/0C-04) Assess whether cybernecurity insurance is appropriate for your business. (GVAM-O **Overtions** to Consider formal relationships. (GV.SC-06) · As our business grows, how offer · Do we need to upskill our existing staff, hire takent, or engage an external partner to help us establish and manage our cybersecurity plan? Do we have acceptable use policies in place for business and for em devices accessing business resources? Have employees been educated on these Related Resources ulture. (GirAR-03 View all NIST CSF 2.0





RE	SPOND		12
The Respond Function supports your ability to take action regarding a detected cybersecurity incident.			-
Actions to Consider	Getting Started with an incident Response Plan	Contact	Phor
Understand	Before an incident occurs, you sent to be ready with a basic response plan. This will be customized based on the business but should include:	Business Geader:	
Understand what your incident response plan is and who has authority and responsibility for implementing various aspects of the plan. (IS MA-02)	 A business champion: Someone who is responsible for developing and maintaining your roll destinations of the second second Who te add in Lind the individual who may be just of your incident response efforts, totable their antests information, responsible, and autorough What/when the respect: Us your business's communication/specific respect: Us your business's 	Technical Contact:	
Assess		State Police:	
 Assess your ability to respond to a cybersecurity incident. (RS.MM-Q2) Assess the incident to determine its severity, what happened; and its root cause. (RS.AM.Q2. AS.MB.Q2) 		tegai	
		Bank:	
Prioritize	regulations, contracts, or policies. Technical Deep Dive: NST Computer Security Incident Handing Guide	insurance:	
Prioritize taking steps to contain and eradicate the incident to prevent further demans. (RS.MP)	Questions to Cansider		
Communicate	 Do see have a sybemacurity incident response plan? If so, have we practiced it to see if feecible? 		es if it i
Communicate a confirmed cybersecurity incident with all internal and external stakeholders (e.g., customers, business partners, law enforcement agencies,	 Do see know who the key internal and external stakeholders and dec will assist if we have a confirmed cybersecurity incident? 	ision-makers	are who
regulatory bodina) as required by laws, regulations, contracts, or policies. (#5.CD-02/03)	Related Resources		
	FBI's Internet Grime Complaint Genter		
	Data Breach Response: A Guide for Business Jant Provider for Victim Response and Reporting of Cabler Incidents		

PF	ROTECT		
The Protect Function supports your ability to use safeguards to pre-	vent or reduce cybersecurity risks.		
Actions to Consider	Getting Started with Protecting Your Business		
biotechnic set in the set of t	Research States Handler, Markel Jacob States Handle	Information. Use this checklist to than this: MAA familied (178)	

The Recover Function involves activities to restore assets and operation	ions that were impacted by a cybersecurity incident.
Actions to Consider	Getting Started with a Recovery Playbook A pluybook typically includes the following critical elements:
Understand + isolations and an addition pure hydronic has reasonary responsibilities: (B,C,P,d). Arean • Anotae and happened by properting an after action responsible type of each or iso- constrations with a static has also also also also also also also al	A call there income presents Sourcesses to the inclusive of experiments of the inclusive o
Prioritie • Prioritie your resourcy actions based on organizational needs, resources, and assets impacted (BC: AP-G2) Communicate	What are our lessons beamed? How can see minimize the chances of a optersourity insident heapymage in the billions? What are our legal-regulations, and contractual obligations for communicating to inte and entering tableholders a plenmeating incident? How do use ensure that the moosery ategs we are tableg are not introducing new submediations to any chances?
Communicato regularly and securely with internal and external stakeholders. (RCC0) Communicate and document completion of the incident and resumption of memal activities. (RCRP-06)	Related Resources Contract, R. Tables, Resources Contract, R. Tables, Resources Contract, en IT Disaster Recovery Flag Backet and Resource Resources Disaster and Resources Disaster

GOVERN

The Govern Function helps you establish and monitor your business's cybersecurity risk management strategy, expectations, and policy.

Actions to Consider

Understand

- Understand how cybersecurity risks can disrupt achievement of your business's mission. (GV.OC-01)
- Understand your legal, regulatory, and contractual cybersecurity requirements. (GV.OC-03)
- Understand who within your business will be responsible for developing and executing the cybersecurity strategy. (GV.RR-02)

Assess

- Assess the potential impact of a total or partial loss of critical business assets and operations. (GV.0C-04)
- Assess whether cybersecurity insurance is appropriate for your business. (GV.RM-04)
- Assess cybersecurity risks posed by suppliers and other third parties before entering into formal relationships. (GV.SC-06)

Prioritize

• Prioritize managing cybersecurity risks alongside other business risks. (GV.RM-03)

Communicate

01)

- Communicate leadership's support of a risk-aware, ethical, and continually improving culture. (GV.RR-01)
- Communicate, enforce, and maintain policies for managing cybersecurity risks. (GV.PO-

Getting Started with Cybersecurity Governance

You can use these tables to begin thinking about your cybersecurity governance strategy.

Setting Organizational Context		Documenting Cybersecurity Requirements	
Our business mission statement:		List your legal requirements:	
What cybersecurity risks may prevent us		List your regulatory requirements:	
from achieving this mission?		List your contractual requirements:	

Technical Deep Dive: <u>Staging Cybersecurity Risks for Enterprise Risk Management and</u> <u>Governance Oversight</u>

Questions to Consider

- As our business grows, how often are we reviewing our cybersecurity strategy?
- Do we need to upskill our existing staff, hire talent, or engage an external partner to help us establish and manage our cybersecurity plan?
- Do we have acceptable use policies in place for business and for employee-owned devices accessing business resources? Have employees been educated on these policies?

Related Resources

- Securing Small and Medium-Sized Supply Chains Resource Handbook
- <u>Choosing A Vendor/Service Provider</u>

View all NIST CSF 2.0 Resources Here

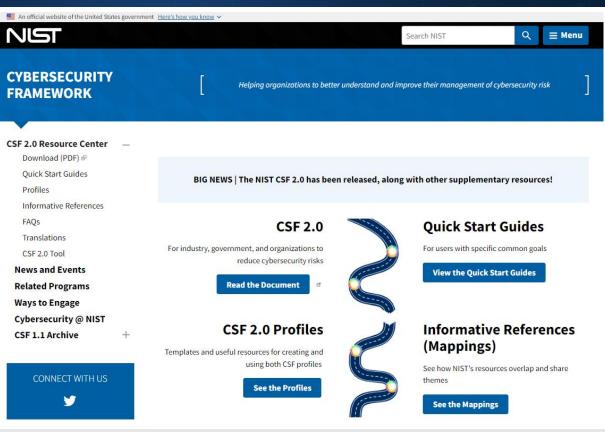


Additional CSF 2.0 Resources



CSF 2.0 Resource Library





View the CSF 2.0 Resource Library: https://nist.gov/cyberframework

Explore Other CSF 2.0 Resources



	Navigating NIST's CSF 2	.0 Quick Start Guides		Search CSRC Q ECSRC MENU
	Resource and O	verview Guide	Information Technology Laboratory COMPUTER SECURITY RESOURCE CENTER	
NIST Cybersecurity Framework 2.0: RESOURCE &	Understand the basics and learn about the Downlo		PROJECTS CHERKECLIRITY AND PRIVACY REFERENCE TOOL Cybersecurity and Privacy Reference Tool CPRT	
OVERVIEW GUIDE	The below targeted guides will help you with specific	topics.	f y in Market for the NIST Cybersecurity Framework 2.0 Draft, Version 2.0	Search: [Enter exact match phrase
Chesticulty Pranework	CSF 2.0 Organizational Profiles Guidance for organizations, with considerations for creating and using spreadsheets called <i>Profiles</i> , to implement	CSF 2.0 Community Profiles This guide provides considerations for creating and using Community Profiles to implement the CSF 2.0 and support the needs	CPRT / Version 2.0 Expand Entire Reference Dataset Functions	Deport- 0
ST Special Addration ST Special Addration ST SP 1209	the CSF 2.0. Download a	of organizations in communities that share common priorities. Download a	Establish and monitor the organization's cybersecurity risk management strategy, expectations, and policy ID IDENTIFY Help determine the current cybersecurity risk to the organization PR PROTECT	
NIST Cybersecurity Framework 2.0: Small Business Quick-Start Guide			Find and analyze possible cybersecurity attacks and compromises	Intersecurity Framework
	Small Business Resources specifically tailored to small businesses with modest or no cybersecurity plans currently in place.	C-SCRM Helps organizations become smarter acquirers and suppliers of technology products and services.	Take action regarding a detected cybersecurity incident BC BECOVER NIST Cybersecurity Framework (CSF) 2.0 Reference Search: [Enter eact math plyan. Tool	CSF 2.0 Informative Reference Catalog. Branch actements war here regard tool (21 22 November 2014) Compare CSF 2.0 Informative References Description Compare CSF 2.0 Informative Compare CSF 2.0 Informative CSF 2.0 Info
			Function GOVERN (GV): Establish and monitor the organization's cybersecurity risk management strategy,	Download Informative Reference in the Core Design deviated all the Interview Information CVD 23 Execution (2011) Committee CVD 23
NIST Cybersscurity Framework 2.0: Quick-Start Guide for Creating and Using Organizational Profiles	Tiers Organizations can use these to apply the CSF 2.0 Tiers to Profiles to characterize the rigor of their cybersecurity risk governance and management outcomes.	Enterprise Risk Management How ERM practitioners can utilize the outcomes provided in the CSF 2.0 to improve organizational cybersecurity risk management.	Category Megatizational Context (RUAC): The circumstances - mission, stak-holder repectations, and legal, regulatory, and contractual representations cyben-excutry relationary and contractual representation of the circumstances. Subcategory Contract Development of the circumstances - mission are understood fluenerity to BE: 0. Subcategory Contract Development of the circumstances. Subcategory Contract Development of the circumstances. Subcategory Ext. Subcategory Ext. Sub-the circumstances mission is g, drough vision and mission statements, marketing, and service strategies to provide reals that may reprede that mission Contract Development of the mission	Preneorit de

Resources



Quick Links	Contact Information
CSF 2.0 Website: https://www.nist.gov/cyberframework	cyberframework@nist.gov
CSF 2.0 FAQs: https://www.nist.gov/faqs	
Framework Resource Center-Community Profiles: https://www.nccoe.nist.gov/framework-resource-center	framework-profiles@nist.gov
Guide to Creating Community Profiles: https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.32.ipd.pdf	
CSF 2.0 Small Business Quick Start Guide: https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1300.pdf	smallbizsecurity@nist.gov
CSF 2.0 Cybersecurity Supply Chain Risk Management (C-SCRM) Quick Start Guide: https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1300.pdf	<u>scrm-nist@nist.gov</u>
National Online Informative References Program (OLIR)-Mappings: <u>https://csrc.nist.gov/projects/olir</u> & <u>https://csrc.nist.gov/Projects/olir/derived-relationship-mapping#/</u>	<u>olir@nist.gov</u>
Cybersecurity and Privacy Reference Tool (CPRT): https://csrc.nist.gov/Projects/cprt -	<u>cprt@nist.gov</u>
NIST International Cybersecurity and Privacy Resources: https://www.nist.gov/cybersecurity/international-cybersecurity-and-privacy-resources	intl-cyber-privacy@nist.gov

How to Get Involved



How to Get Involved



- Join the NCCoE CSF 2.0 Community Profiles Community of Interest: https://www.nccoe.nist.gov/framework-resource-center
- Join a Small Business Cybersecurity Community of Interest: https://www.nist.gov/itl/smallbusinesscyber/get-engaged
- Submit resources. These can include Profiles, Translations, Mappings, and more.
- Sign up for CSF email alerts: <u>https://public.govdelivery.com/accounts/USNIST/subscriber/new</u>
- Send us a note: cyberframework@nist.gov



Thank You for Joining Us Today!

FOR FURTHER INFORMATION AND/OR QUESTIONS ABOUT THE CYBERSECURITY FRAMEWORK:

cyberframework@nist.gov

Questions

• Mute when not speaking.



Reactions

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Raise Hand





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Resources



Quick Links	Contact Information
CSF 2.0 Website: https://www.nist.gov/cyberframework	cyberframework@nist.gov
CSF 2.0 FAQs: https://www.nist.gov/faqs	
Framework Resource Center-Community Profiles: https://www.nccoe.nist.gov/framework-resource-center	framework-profiles@nist.gov
Guide to Creating Community Profiles: https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.32.ipd.pdf	
CSF 2.0 Small Business Quick Start Guide: https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1300.pdf	smallbizsecurity@nist.gov
CSF 2.0 Cybersecurity Supply Chain Risk Management (C-SCRM) Quick Start Guide: https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1300.pdf	<u>scrm-nist@nist.gov</u>
National Online Informative References Program (OLIR)-Mappings: <u>https://csrc.nist.gov/projects/olir</u> & <u>https://csrc.nist.gov/Projects/olir/derived-relationship-mapping#/</u>	<u>olir@nist.gov</u>
Cybersecurity and Privacy Reference Tool (CPRT): https://csrc.nist.gov/Projects/cprt -	<u>cprt@nist.gov</u>
NIST International Cybersecurity and Privacy Resources: https://www.nist.gov/cybersecurity/international-cybersecurity-and-privacy-resources	intl-cyber-privacy@nist.gov

APTA Security Standards

https://www.apta.com/research-technical-resources/standards/security/





PT ISAC

Information Sharing & Analysis Center

PUBLIC TRANSPORTATION, OVER THE ROAD BUS, & SURFACE TRANSPORTATION





Thanks for attending

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