NIST SP 800-184: Guide for Cybersecurity Event Recovery

- Purpose
  - Provide guidance to prepare for recovery from a cyber incident
  - Previous recovery content tended to be spread out
  - Important to enterprise risk management

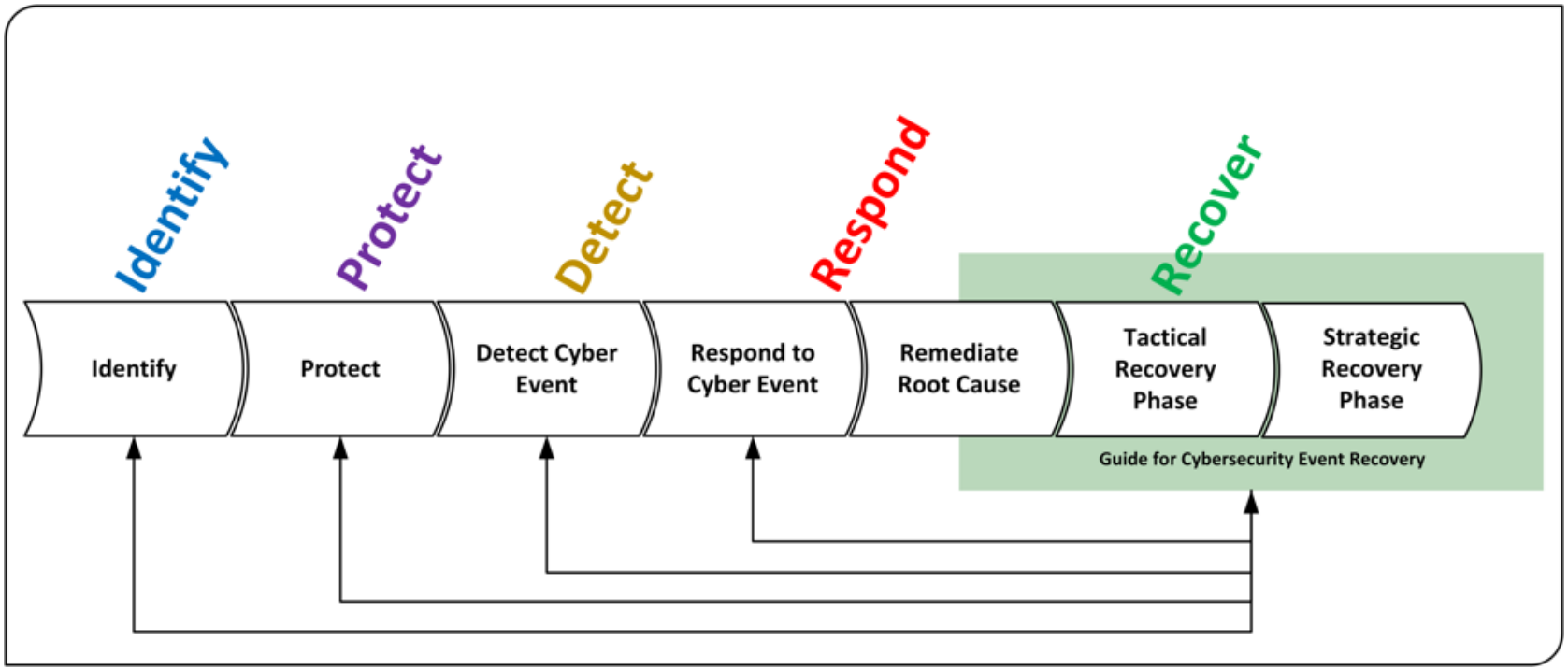
- Our Approach
  - Open & Transparent
  - Impartial facilitator and convener
  - Collaborate with USG and Industry
  - Include current industry and government standards and practices

NIST Cybersecurity Framework (CSF)

- NIST published the Cybersecurity Framework to help organizations manage cybersecurity risks.
- Recover is one of the five core functions of the CSF.
- Recovery is the development and implementation of plans, processes, and procedures for recovery and full restoration, in a timely manner, of any capabilities or services that are impaired due to a cyber event.

Function Unique Identifier	Function	Category Unique Identifier	Category
ID	Identify	ID.AM	Asset Management
		ID.BE	Business Environment
		ID.GV	Governance
		ID.RA	Risk Assessment
		ID.RM	Risk Management Strategy
PR	Protect	PR.AC	Access Control
		PR.AT	Awareness and Training
		PR.DS	Data Security
		PR.IP	Information Protection Processes and Procedures
		PR.MA	Maintenance
		PR.PT	Protective Technology
DE	Detect	DE.AE	Anomalies and Events
		DE.CM	Security Continuous Monitoring
		DE.DP	Detection Processes
RS	Respond	RS.RP	Response Planning
		RS.CO	Communications
		RS.AN	Analysis
		RS.MI	Mitigation
		RS.IM	Improvements
RC	Recover	RC.RP	Recovery Planning
		RC.IM	Improvements
		RC.CO	Communications

NIST SP 800-184 Relation to CSF



NIST SP 800-184 Guidance

- Planning for Cyber Event Recovery
- Continuous Improvement
- Recovery Metrics
- Building the Playbook
- Example Scenarios of Cyber Events

Planning for Cyber Event Recovery

- Understand people, processes, and technologies and their interdependencies.
- Define key milestones for recovery efforts.
- Implement effective incident management policies.
- Develop a comprehensive recovery communications plan.

Continuous Improvement

- Implement cyber event recovery exercises and tests.
- Conduct post exercise debriefs to incorporate lessons learned.
- Use recovery to enhance organization’s security posture.
- Record issues to expand on existing system documentation.

Recovery Metrics

- Organizations define what metrics to use and how to use them.
- Ensure metrics provide useful information that supports actionable improvement without being detrimental to recovery.
- Example Metrics:
  - Legal costs [dollar]
  - Hardware, software, and labor costs [dollar]
  - Costs relating to business disruption (e.g. system downtime) [time]
  - Frequency of recovery exercises and tests [number of times per year]
  - Incidents that weren't identified in risk assessment [number of incidents]
  - Percent of IT services meeting uptime requirements [service level agreement]
  - Percent of successful and timely restoration from backup or alternate media copies [number of systems and times]

Building the Playbook

- Express the required recovery tasks and processes in a manner that provides relevant actions and milestones
- Tactical Phase
  - Execution of the playbook developed as part of the planning efforts.
  - Actions can be organized into initiation, execution, and termination stages.
- Strategic Phase
  - How to reduce the organization's attack surface and minimize cyber threats.
  - Actions organized into the planning/execution, metrics, and recovery improvement stages.

Example Scenarios of Cyber Events

- Two example scenarios:
  - Exfiltration of personally identifiable information (PII)
  - Ransomware attack
- Scenarios are fictional and not meant to be all-inclusive or exhaustive
- Demonstrates how to apply the document's recommendations

Questions?