

SOLUTION BRIEF

Mapping of NIST 800-53 to Essential Network Security

Nearly every organization faces significant IT security compliance demands regardless of agency. Their intent is ensuring mandated controls are always in place and that they are performing assessments with prescribed regularity. And deciphering governmental regulations like FISMA, NIST, DISA STIG, or FEDRAMP can be a daunting task for network teams. Federal agencies and private enterprises alike are adopting frameworks like NIST 800-53 to enhance their security best practices.

Essential network controls are often steeped in process and interpretation, making them difficult to budget and implement. Isolating these controls enables IT and Security to have common ground to ensure their network policy meets compliance standards.

This mapping shows how FireMon’s solutions deliver your essential network controls and how they map to your NIST requirements.

Essential Network Security Controls	NIST 800-53 rev4 Requirements
<p>➔ Inventory of Authorized and Unauthorized Devices</p> <p>Knowing what you have in your environment is a cornerstone of your network security strategy, and ultimately, successful compliance with NIST.</p> <p>FireMon helps you find more by:</p> <ul style="list-style-type: none"> – Eliminating 100% of your blind spots and monitor changes and modifications to the environment – Discovering, mapping, and alerting on topology changes across the entire hybrid enterprise, including multi-cloud environments 	<p>CA-7 - Continuous Monitoring CM-8 - Information System Component Inventory IA-3 - Device Identification and Authentication SA-4 - Acquisition Process SC-17 - Public Key Infrastructure Certificates SI-4 - Information System Monitoring PM-5 - Information System Inventory</p>
<p>➔ Continuous Vulnerability Assessment and Remediation</p> <p>The best way to combat unwarranted access is to preemptively identify areas of vulnerability.</p> <p>FireMon helps manage risk by:</p> <ul style="list-style-type: none"> – Scoring attack simulations and policy updates for risk and impact and then re-scoring once you’ve made improvements – Integrating with your vulnerability management solutions (i.e., Qualys, Rapid7, and Tenable) to measure risk and identify potential attacks – Detecting in real-time to uncover vulnerable systems, scope proposed changes before implementation, and to streamline the approval process 	<p>CA-2 - Security Assessments CA-7 - Continuous Monitoring RA-5 - Vulnerability Scanning SC-34 - Non-Modifiable Executable Programs SI-4 - Information System Monitoring SI-7 - Software, Firmware, and Information Integrity</p>
<p>➔ Maintenance, Monitoring, and Analysis of Audit Logs</p> <p>Continuous compliance requires the monitoring and analysis of logs and updates to network devices.</p> <p>FireMon helps you monitor by:</p> <ul style="list-style-type: none"> – Providing out-of-the-box and customizable assessments to help you ensure compliance with NIST standards – Automatically identifying rules that require immediate analysis based on real-world events – Documenting rule recertification and justification to aid in compliance audits 	<p>AC-23 - Data Mining Protection AU-2 - Audit Events AU-3 - Content of Audit Records AU-4 - Audit Storage Capacity AU-5 - Response to Audit Processing Failures AU-6 - Audit Review, Analysis, and Reporting AU-7 - Audit Reduction and Report Generation AU-8 - Time Stamps AU-9c - Protection of Audit Information AU-10 - Non-repudiation AU-11 - Audit Record Retention AU-12 - Audit Generation AU-13 - Monitoring for Information Disclosure AU-14 - Session Audit CA-7 - Continuous Monitoring IA-10 - Adaptive Identification and Authentication SI-4 - Information System Monitoring</p>

Essential Network Security Controls

NIST 800-53 rev4 Requirements

→ Secure Configurations for Network Devices

Secure configuration for network devices starts with firewall policy and the specific management tools deployed.

FireMon helps you with security assessments and hygiene by:

- Eliminating duplicate or shadowed rules that adversely impact device performance
- Performing real-time analysis and providing an extensive history for rule and object usage in a policy to help you easily identify unused rules
- Showing unique traffic patterns that exist in a rule and report on what data is flowing across a broadly defined address range
- Applying event-driven review and verification to help you keep and recertify the rules that are still needed and those that need to be decommissioned

AC-4 - Information Flow Enforcement
CA-3 - System Interconnections
CA-7 - Continuous Monitoring
CA-9 - Internal System Connections
CM-2 - Baseline Configuration
CM-3 - Configuration Change Control
CM-5 - Access Restrictions for Change
CM-6 - Configuration Settings
CM-8 - Information System Component Inventory
MA-4 - Nonlocal Maintenance
SC-24 - Fail in Known State
SI-4 - Information System Monitoring

→ Boundary Defense

Network security used to be about maintaining healthy boundaries at the perimeter, but mobile computing, cloud platforms, and digital transformation mean these boundaries are more porous and less defined.

FireMon helps you by:

- Connecting to all on-premises network devices and private public cloud instances to capture security policies, normalize data, and to display through a single pane of glass
- Providing insight into any requests that duplicate access or any rules that allow similar access to a new request
- Performing a pre-change impact analysis that simulates a potential rule change and analyzes its impact on compliance and security
- Integrating with your existing ticketing systems to automate policy approval

AC-4 - Information Flow Enforcement
AC-17 - Remote Access
AC-20 - Use of External Information Systems
CA-3 - System Interconnections
CA-7 - Continuous Monitoring
CA-9 - Internal System Connections
CM-2 - Baseline Configuration
SA-9 - External Information System Services
SC-7 - Boundary Protection
SC-8 - Transmission Confidentiality and Integrity
SI-4 - Information System Monitoring

→ Incident Response and Management

Preempt breaches through continuous adaptive enforcement. Complete policy lifecycle automation helps reduce the impact of breaches and proactively strengthens your security posture.

FireMon helps you proactively by:

- Eliminating 100% of your blind spots and monitor changes and modifications to the environment
- Discovering, mapping, and alerting on topology changes across the entire hybrid enterprise, including multi-cloud environments
- Automatically identifying rules that require immediate analysis based on real-world events, like a breach
- Showing unique traffic patterns that exist in a rule and report on what data is flowing across a broadly defined address range

IR-1 - Incident Response Policy and Procedures
IR-2 - Incident Response Training
IR-3 - Incident Response Testing
IR-4 - Incident Handling
IR-5 - Incident Monitoring
IR-6 - Incident Reporting
IR-7 - Incident Response Assistance
IR-8 - Incident Response Plan
IR-10 - Integrated Information Security Analysis Team



FireMon's mission is to improve security operations that will in turn lead to better security outcomes. FireMon delivers industry-leading security policy management, cloud security operations, and asset management solutions. Our platform is the only real-time solution that reduces firewall and cloud security policy-related risks, manages policy changes, and enforces compliance. FireMon's Cloud Defense solution (formerly DisruptOps) is the only distributed cloud security operations offering that detects and responds to issues in the fast-paced public cloud environments. Our cloud-based Asset Management solution (formerly Lumeta) scans entire infrastructures to identify everything in the environment and provide valuable insights into how it's all connected.