# NIST 800-53 Mapping Document

# Accurately automate the assessment of 94% of NIST 800-53 core network controls





## NIST 800-53 Mapping Document

Titania Nipper is trusted by the US Department of Defense (DoD) and other federal agencies to accurately automate core network device assessments against trusted risk management and control frameworks and benchmarks (NIST, STIGs and CIS benchmarks). Titania Nipper is proven to save up to 3 hours per device audit by not investigating false positives generated by competitive solutions.

Nipper automates the accurate assessment of 34 (94%) of NIST 800-53 controls related to network devices across the following 10 control families, allowing federal agencies to determine and demonstrate NIST 800-53 compliance:

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#### **Access Control**

| Control Family | Control # | Control                         | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper | Check Automated with<br>Nipper Audit   | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|----------------|-----------|---------------------------------|---------------------------|--|--|----------|--------------------------------------|------------------------------------|---------------------------------------|
|                | AC-2      | Account<br>Management           | N/A                       | AC-2(7)<br>AC-2(9)                                     | Configuration Report                   | P1       | N/A                                  | N/A                                | N/A                                   |
|                | AC-4      | Information Flow<br>Enforcement | AC-4                      | AC-4(1)  | Security Audit                         | P1       | N/A                                  | $\checkmark$                       | $\checkmark$                          |
|                | AC-6      | Least Privilege                 | AC-6                      | AC-6(1)  | Security Audit<br>Configuration Report | P1       | N/A                                  | $\checkmark$                       | $\checkmark$                          |
| Access         | AC-7      | Unsuccessful<br>Logon Attempts  | AC-7                      | N/A  | Security Audit                         | P2       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
| Control (AC)   | AC-8      | System Use<br>Notification      | AC-8(a),(b)               | N/A  | Security Audit                         | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|                | AC-11     | Device Lock                     | AC-11                     | N/A  | Security Audit                         | P3       | N/A                                  | $\checkmark$                       | $\checkmark$                          |
|                | AC-17     | Remote Access                   | AC-17(b)                  | AC-17(2)   | Security Audit                         | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|                | AC-18     | Wireless Access                 | AC-18(b)                  | AC-18(1)   | Security Audit                         | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |



## Audit & Accountability

| Control Family              | Control # | Control                                     | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper | Check Automated with<br>Nipper Audit   | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|-----------------------------|-----------|---|---------------------------|--|--|----------|--------------------------------------|------------------------------------|---------------------------------------|
|                             | AU-2      | Audit Events                                | AU-2(a),(b),(c)           | N/A  | Nipper + SIEM<br>Integration           | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|                             | AU-3      | Content of Audit<br>Records                 | AU-3                      | AU-3(1)<br>AU-3(3)                                     | Nipper + SIEM<br>Integration           | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|                             | AU-4      | Audit Storage<br>Capacity                   | AU-4                      | AU-4(1)  | Security Audit<br>Configuration Report | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
| Audit and<br>Accountability | AU-6      | Audit Review,<br>Analysis, and<br>Reporting | AU-6(a),(c)               | AU-6(1)<br>AU-6(3)<br>AU-6(4)<br>AU-6(5)               | Nipper + SIEM<br>Integration           | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
| (AU)                        | AU-7      | Audit Reduction<br>and Report<br>Generation | AU-7                      | AU-7(1)  | Nipper + SIEM<br>Integration           | P2       | N/A                                  | $\checkmark$                       | $\checkmark$                          |
|                             | AU-9      | Protection of<br>Audit Information          | N/A                       | AU-9(2)  | Security Audit                         | P1       | N/A                                  | N/A                                | $\checkmark$                          |
|                             | AU-11     | Audit Record<br>Retention                   | AU-11                     | AU-11(1)   | Nipper + SIEM<br>Integration           | P3       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|                             | AU-12     | Audit<br>Generation                         | AU-12(a),(b),(c)          | AU-12(1)<br>AU-12(2)                                   | Nipper + SIEM<br>Integration           | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |



# **Security Assessment and Authorization**

| Control Family               | Control # | Control                  | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper | Check Automated with<br>Nipper Audit | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|------------------------------|-----------|--------------------------|---------------------------|--|--------------------------------------|----------|--------------------------------------|------------------------------------|---------------------------------------|
| Security<br>Assessment       | CA-2      | Security<br>Assessments  | CA-2(d),(e)               | CA-2(2)  | Security Audit                       | P2       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
| and<br>Authorization<br>(CA) | CA-7      | Continuous<br>Monitoring | CA-7(c),(e)               | CA-7(3)<br>CA-7(4)<br>CA-7(6)                          | Nipper + SIEM<br>Integration         | P2       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |

#### **Configuration Management**

| Control Family                      | Control # | Control   | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper | Check Automated with<br>Nipper Audit                                    | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|-------------------------------------|-----------|---|---------------------------|--|---|----------|--------------------------------------|------------------------------------|---------------------------------------|
|                                     | CM-2      | Baseline<br>Configuration                       | CM-2(b)                   | N/A  | Raw Change Tracking   | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|                                     | CM-5      | Access<br>Restrictions for<br>Change            | N/A                       | CM-5(1)  | Security Audit  | P1       | N/A                                  | N/A                                | $\checkmark$                          |
| Configuration<br>Management<br>(CM) | CM-6      | Configuration<br>Settings                       | CM-6(c),(d)               | CM-6(1)<br>CM-6(2)                                     | Security Audit<br>STIG Audit<br>Vulnerability Audit<br>SIEM Integration | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|                                     | CM-7      | Least<br>Functionality                          | CM-7                      | CM-7(1)  | Security Audit  | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|                                     | CM-8      | Information<br>System<br>Component<br>Inventory | CM-8                      | CM-8(1)  | Configuration Report  | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |



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### **Identification and Authentication**

| Control Family                                  | Control # | Control                     | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper | Check Automated with<br>Nipper Audit | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|---|-----------|-----------------------------|---------------------------|--|--------------------------------------|----------|--------------------------------------|------------------------------------|---------------------------------------|
| Identification<br>and<br>Authentication<br>(IA) | IA-5      | Authenticator<br>Management | IA-5(c),(e),(f),(h)       | IA-5(1)  | Security Audit                       | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |

#### **Risk Assessment**

Assured Accuracy

| Control Family             | Control # | Control                   | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper          | Check Automated with<br>Nipper Audit                      | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|----------------------------|-----------|---------------------------|---------------------------|---|---|----------|--------------------------------------|------------------------------------|---------------------------------------|
|                            | RA-3      | Risk<br>Assessment        | RA-3(a)                   | N/A   | Security Audit  | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
| Risk<br>Assessment<br>(RA) | RA-5      | Vulnerability<br>Scanning | RA-5(a),(b),(c),(f)       | RA-5(2)<br>RA-5(3)<br>RA-5(5)<br>RA-5(6)<br>RA-5(8)<br>RA-5(10) | Security Audit<br>Vulnerability Audit<br>SIEM Integration | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |

#### **System and Services Acquisition**

| Control Family                                | Control # | Control                | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper | Check Automated with<br>Nipper Audit             | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|---|-----------|------------------------|---------------------------|--|--|----------|--------------------------------------|------------------------------------|---------------------------------------|
| System and<br>Services<br>Acquisition<br>(SA) | SA-4      | Acquisition<br>Process | N/A                       | SA-4(5)  | Security Audit<br>STIG Audit<br>SIEM Integration | P1       | N/A                                  | N/A                                |                                       |
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# **System and Communications Protection**

| Control Family                                  | Control # | Control                         | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper   | Check Automated with<br>Nipper Audit   | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|---|-----------|---------------------------------|---------------------------|--|--|----------|--------------------------------------|------------------------------------|---------------------------------------|
|   | SC-5      | Denial of Service<br>Protection | SC-5                      | SC-5(3)  | Security Audit                         | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
| System and<br>Communications<br>Protection (SC) | SC-7      | Boundary<br>Protection          | SC-7(b),(c)               | SC-7(4 - f,h)<br>SC-7(5)<br>SC-7(11)<br>SC-7(13)<br>SC-7(19)<br>SC-7(21)<br>SC-7(22)<br>SC-7(23)<br>SC-7(29) | Security Audit<br>Configuration Report | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
|   | SC-10     | Network<br>Disconnect           | SC-10                     | N/A  | Security Audit                         | P2       | N/A                                  | $\checkmark$                       | $\checkmark$                          |
|   | SC-45     | System Time<br>Synchronization  | SC-45                     | SC-45(1)<br>SC-45(2)   | Security Audit                         |          | N/A                                  | N/A                                | N/A                                   |



#### **System and Information Integrity**

| Control Family            | Control # | Control   | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper | Check Automated with<br>Nipper Audit | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|---------------------------|-----------|---|---------------------------|--|--------------------------------------|----------|--------------------------------------|------------------------------------|---------------------------------------|
| System and<br>Information | SI-4      | Information<br>System<br>Monitoring               | SI-4(d),(e)               | SI-4(2)<br>SI-4(3)<br>SI-4(16)<br>SI-4(17)             | Nipper + SIEM<br>Integration         | P1       | $\checkmark$                         | $\checkmark$                       | $\checkmark$                          |
| Integrity (SI)            | SI-5      | Security Alerts,<br>Advisories, and<br>Directives | N/A                       | SI-5(1)  | Nipper + SIEM<br>Integration         | P1       | N/A                                  | N/A                                | N/A                                   |

#### Supply Chain Risk

| Control Family                             | Control # | Control                                | Main Control<br>Supported | Control Enhancement<br>Checks Automated<br>with Nipper | Check Automated with<br>Nipper Audit | Priority | Low Impact<br>Information<br>Systems | Moderate<br>Information<br>Systems | High Impact<br>Information<br>Systems |
|--|-----------|--|---------------------------|--|--------------------------------------|----------|--------------------------------------|------------------------------------|---------------------------------------|
| Supply Chain<br>Risk<br>Management<br>(SR) | SR-6      | Supplier<br>Assessments and<br>Reviews | SR-6                      | SR-6(1)  | Vulnerability Audit                  |          | N/A                                  | $\checkmark$                       | $\checkmark$                          |



Trusted by US federal agencies, Titania Nipper's unrivaled accuracy in diagnosing core network misconfigurations and vulnerabilities is proven to save up to 3 hours per device audit by not investigating false positives.

94% of controls in the NIST 800-53 framework related to network devices can be automated and accurately assessed, helping internal auditors and audit contractors to determine and demonstrate compliance.

Visit <u>titania.com/nipper</u> to download a 30-day trial today and put Nipper's accuracy to the test on your network devices.

*Or get in touch to arrange a demonstration of how to integrate Nipper with your SIEM to aggregate your NIST 800-53 audit data and analyze compliance across your network.* 



Titania, Security House, Barbourne Road, Worcester, WR1 1RS

+1 (703) 682-6821 enquiries@titania.com