

NIST SP800-171

NIST SP800-171 is a codification of the requirements that any non-federal computer system must follow in order to store, process, or transmit Controlled Unclassified Information (CUI) or provide security protection for such systems. This set of guidelines imposes administrative and technical requirements on contractors and sub-contractors of federal agencies to ensure that sensitive federal information remains confidential when stored in non-federal information systems and organizations. First published in 2015 by the National Institute of Standards and Technology (NIST), NIST SP800-171 went into full effect in 2017, and it has been updated several times since then.

This document maps out how Sophos solutions offer effective tools to help address some of the requirements as part of a customer’s efforts to comply with NIST SP800-171.

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No.	Security Requirements	Sophos Solution	How It Helps
3.1 Access Control			
Basic Security Requirements			
3.1.1	Limit system access to authorized users, processes acting on behalf of authorized users, and devices (including other systems).	Sophos Firewall	User awareness across all areas of our firewall governs all firewall policies and reporting, giving user-level controls over applications, bandwidth, and other network resources.
		Sophos Central Device Encryption	Enables protection of devices and data with full disk encryption for Windows and macOS.
		Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
		Sophos Cloud Optix	Sophos Cloud Optix, Cloud Security Posture Management solution, connects disparate actions with Sophos AI to pinpoint unusual access patterns and locations to cloud provider consoles in near real time to identify credential misuse or theft. It includes an IAM visualization tool that provides a complete map of IAM relationships and allows teams to quickly and easily identify over-privileged access and create right-sized IAM policies before they are exploited in cyberattacks.

No.	Security Requirements	Sophos Solution	How It Helps
3.1.2	Limit system access to the types of transactions and functions that authorized users are permitted to execute.	Sophos ZTNA	Continuously validates user identity, device health, and compliance before granting access to applications and data.
		Sophos Central	Keeps access lists and user privileges information up-to-date. Procedures are in place to ensure that access rights are revoked if individuals no longer meet the conditions to receive access (e.g., because they change position or leave the company).
		Sophos Firewall	User awareness across all areas of our firewall governs all firewall policies and reporting, giving user-level controls over applications, bandwidth, and other network resources. Supports flexible multi-factor authentication options including directory services for access to key system areas.
		Sophos Central Device Encryption	Enables protection of devices and data with full disk encryption for Windows and macOS.
		Sophos ZTNA	Continuously validates user identity, device health, and compliance before granting access to applications and data.
		Sophos Managed Detection and Response (MDR)	Sophos MDR continuously monitors signals from across the security environment, including network, email, mobile, identity, endpoint and more, enabling us to quickly and accurately detect potential cybersecurity events. Anomalous behaviors and code use are detected, investigated, and correlated to identify malicious activities and enable us to quickly neutralize the event
3.1.3	Control the flow of CUI in accordance with approved authorizations.	Sophos Cloud Optix	Sophos Cloud Optix, Cloud Security Posture Management solution, connects disparate actions with Sophos AI to pinpoint unusual access patterns and locations to cloud provider consoles in near real time to identify credential misuse or theft. It includes an IAM visualization tool that provides a complete map of IAM relationships and allows teams to quickly and easily identify over-privileged access and create right-sized IAM policies before they are exploited in cyberattacks.
		Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
		Sophos Firewall	User awareness across all areas of Sophos firewall governs all firewall policies and reporting, enabling user-level control over applications, bandwidth and other network resources. Supports flexible multi-factor authentication options including directory services for access to key system areas.
		Sophos ZTNA	Validates user identity, device health, and compliance before granting access to resources.
		Sophos Cloud Optix	Sophos Cloud Optix, Cloud Security Posture Management solution, connects disparate actions with Sophos AI to pinpoint unusual access patterns and locations to cloud provider consoles in near real time to identify credential misuse or theft. It includes an IAM visualization tool that provides a complete map of IAM relationships and allows teams to quickly and easily identify over-privileged access and create right-sized IAM policies before they are exploited in cyberattacks.
		Sophos Switch	Allows network access control that enables you to authenticate users using LDAP, MAC address, or other authentication methods to connect to a network. This prevents unauthenticated users and devices from gaining access to your LAN.
3.1.3	Control the flow of CUI in accordance with approved authorizations.	Sophos Mobile	Provides enterprise mobility and security management capabilities for traditional and mobile endpoints, including security and device policies. Flexible compliance rules monitor device health and can automatically deny access to sensitive data in case of a compromised device.

Derived Security Requirements

No.	Security Requirements	Sophos Solution	How It Helps
3.1.4	Separate the duties of individuals to reduce the risk of malevolent activity without collusion.	All Sophos products	Sophos' user-identity-based policy technology allows user-level controls over network resources and other organization assets.
3.1.5	Employ the principle of least privilege, including for specific security functions and privileged accounts.	Sophos Cloud Optix	Adopt the principle of least privilege across public cloud environments with Sophos Cloud Optix, Cloud Security Posture Management solution. The SaaS based service connects disparate actions with Sophos AI to pinpoint unusual access patterns and locations to cloud provider consoles in near real time to identify credential misuse or theft. And includes an IAM visualization tool that provides a complete map of IAM relationships and allows teams to quickly and easily identify over-privileged access and create right-sized IAM policies before they are exploited in cyberattacks.
		Sophos Central	Configurable role-based administration provides granular control of administrator privileges. Keeps access lists and user privileges information up to date.
		Sophos Central	Does not permit shared administrator accounts. Each employee has his or her own account, with explicit permissions granted to each account. Protects privileged and administrator accounts with advanced two-factor authentication.
3.1.7	Prevent non-privileged users from executing privileged functions and capture the execution of such functions in audit logs.	All Sophos products	Generate security event logs that can be integrated into a centralized monitoring program for incident detection and response.
		Sophos Cloud Optix	Sophos Cloud Optix, Cloud Security Posture Management solution, connects disparate actions with Sophos AI to pinpoint unusual access patterns and locations to cloud provider consoles in near real time to identify credential misuse or theft. It includes an IAM visualization tool that provides a complete map of IAM relationships and allows teams to quickly and easily identify over-privileged access and create right-sized IAM policies before they are exploited in cyberattacks.
		Sophos Central	Does not permit shared administrator accounts. Each employee has his or her own account, with explicit permissions granted to each account. Protects privileged and administrator accounts with advanced two-factor authentication.
3.1.12	Monitor and control remote access sessions.	All Sophos products	Generate security event logs that can be integrated into a centralized monitoring program for incident detection and response.
		Sophos Firewall	Controls remote access authentication and user monitoring for remote access, and logs all access attempts.
		Sophos ZTNA	Continuously validates user identity, device health, and compliance before granting access to applications and data. It authenticates requests for access from trusted users, irrespective of the location.
3.1.13	Employ cryptographic mechanisms to protect the confidentiality of remote access sessions.	Sophos Email	Sophos SPX encryption provides encryption in transit and at rest. SPX encryption is able to dynamically encapsulate email content and attachments into a secure encrypted PDF to ensure compliance.
		Sophos Firewall	Facilitates two-factor authentication for VPN connections, with granular RADIUS/TACACS integration. The Sophos Cryptographic Module incorporated into the Sophos Firewall systems provides FIPS 140-2 validated cryptography for the protection of sensitive information.
		Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
		Sophos Wireless	Creates dynamic encrypted Wi-Fi sessions, protecting information in transit on Sophos-managed networks and hotspots.

No.	Security Requirements	Sophos Solution	How It Helps
3.1.14	Route remote access via managed access control points.	Sophos Wireless	Automatically controls access for Sophos-managed clients based upon their health status. Web access is restricted on trusted Wi-Fi networks for non-compliant devices.
3.1.16	Authorize wireless access prior to allowing such connections.	Sophos Wireless	Monitors the health status of any Sophos-managed endpoint or mobile device and automatically restricts web access on trusted Wi-Fi networks for those with serious compliance issues. Provides controlled internet access and hotspots for visitors, contractors, and other guests on the network using enterprise-grade backend authentication for a seamless user experience.
3.1.17	Protect wireless access using authentication and encryption.	Sophos Wireless	Enterprise-grade backend authentication provides seamless and controlled internet access and hotspots for visitors, contractors, and other guests on the network. Encryption based on the Wi-Fi security standards offers strong protection with optimal performance.
3.1.18	Control connection of mobile devices.	Sophos Intercept X for Mobile	Detects malicious and potentially unwanted applications installed on Android devices using Intercept X deep learning technology alongside intelligence from SophosLabs global research team. Integration with Microsoft Intune allows administrators to build conditional access policies, restricting access to applications and data when a threat is detected.
3.1.19	Encrypt CUI on mobile devices and mobile computing platforms.	Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.

3.2 Awareness and Training

Basic Security Requirements

3.2.1	Ensure that managers, systems administrators, and users of organizational systems are made aware of the security risks associated with their activities and of the applicable policies, standards, and procedures related to the security of those systems.	Sophos Training and Certifications	Training courses and certifications to help partners and customers get the best out of Sophos security deployments; access to latest know-how and expertise for security best practices.
		Sophos Phish Threat	Provides simulated phishing cyberattacks and security awareness training for the organization's end users. Courses cover a wide range of topics from phishing and cybersecurity overview lessons, through to data loss prevention, password protection and more.

Derived Security Requirements

3.2.3	Provide security awareness training on recognizing and reporting potential indicators of insider threat.	Sophos Phish Threat	Provides simulated phishing cyberattacks and security awareness training for the organization's end users. Courses cover a wide range of topics from phishing and cybersecurity overview lessons, through to data loss prevention, password protection and more.
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3.3 Audit and Accountability

Basic Security Requirements

3.3.1	Create and retain system audit logs and records to the extent needed to enable the monitoring, analysis, investigation, and reporting of unlawful or unauthorized system activity.	All Sophos products	Generate security event logs that can be integrated into a centralized monitoring program for incident detection and response.
		Sophos Intercept X Sophos Intercept X for Server	Creates detailed log events for all malicious activity on endpoint systems, helping to identify suspicious activity on systems that may store or process CUI.
		Sophos Firewall	Sophos Firewall retains finite logs on the device itself and also summarizes the logs in the form of drill-down on-appliance reports for analysis. The logs can also be integrated into an independent external Syslog server or into Sophos Central for analysis.

No.	Security Requirements	Sophos Solution	How It Helps
		Sophos XDR	Goes beyond the endpoint, pulling in rich network, email, cloud, and mobile data sources to give you an even broader picture of your cybersecurity posture with the ability to drill down into granular detail when needed. With data from each product flowing into the Sophos Data Lake you can quickly answer business critical questions, correlate events from different data sources and take even more informed action.
		Sophos Managed Detection and Response (MDR)	Sophos MDR detects and investigates suspicious events from across the full security environment to identify threats and appropriate response activities. Data is collected across endpoint, network, identity email, and more, and then correlated using powerful AI tools, threat intelligence and human expertise to identify impact and response.
3.3.2	Ensure that the actions of individual system users can be uniquely traced to those users so they can be held accountable for their actions.	Synchronized Security feature in Sophos products	Synchronized Security enables your endpoints and firewall to share real-time intelligence. This enables coordinated isolation, detection and malware remediation across servers, endpoints, and firewalls - stopping advanced attacks. Synchronized User ID shares User Identity between Intercept X and Sophos Firewall, making user identity completely transparent and trouble-free.
		All Sophos products	Sophos' user-identity-based technology powers all policies and reporting across all Sophos products. This allows organizations to enforce role-based user-level controls over network resources and other organizational assets and trace the actions of individual users.
Derived Security Requirements			
3.3.8	Protect audit information and audit logging tools from unauthorized access, modification, and deletion.	Sophos Firewall	Stored logs cannot be accessed, destroyed, or altered without administrator privileges. To prevent accidental destruction due to destruction of firewall device altogether, the logs can be integrated into independent syslog server or into Sophos Central.
3.4 Configuration Management			
Basic Security Requirements			
3.4.1	Establish and maintain baseline configurations and inventories of organizational systems (including hardware, software, firmware, and documentation) throughout the respective system development life cycles	Sophos Cloud Optix	Inventory management across multiple-cloud providers with continuous asset monitoring and complete network topology and traffic visualization.
Derived Security Requirements			
3.4.3	Track, review, approve or disapprove, and log changes to organizational systems.	All Sophos products	All administrative actions are logged and available for reporting and audits.
3.4.6	Employ the principle of least functionality by configuring organizational systems to provide only essential capabilities.	Sophos Firewall	User awareness across all areas of our firewall governs all firewall policies and reporting, enabling user-level access controls. Supports flexible multi-factor authentication options including directory services for access to key system areas.
		Sophos ZTNA	Continuously validates user identity, device health, and compliance before granting access to applications and data.
		Sophos Cloud Optix	Sophos Cloud Optix, Cloud Security Posture Management solution, connects disparate actions with Sophos AI to pinpoint unusual access patterns and locations to cloud provider consoles in near real time to identify credential misuse or theft. It includes an IAM visualization tool that provides a complete map of IAM relationships and allows teams to quickly and easily identify over-privileged access and create right-sized IAM policies before they are exploited in cyberattacks.

No.	Security Requirements	Sophos Solution	How It Helps
3.4.7	Restrict, disable, or prevent the use of nonessential programs, functions, ports, protocols, and services.	Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
		Sophos Central	Protects privileged and administrator accounts with advanced two-factor authentication. Configurable role-based administration provides granular control of administrator privileges. Keeps access lists and user privileges information up to date. Provides procedures to ensure that access rights are revoked if individuals no longer meet the conditions to receive access (e.g., because they change position or leave the company).
		Sophos Firewall	Enables role-based administration for delegating secure network security management; blocks traffic, services, ports and protocols except those explicitly allowed and defined as appropriate and necessary for the organization. Supports flexible multi-factor authentication options including directory services for access to key system areas.
		Sophos Managed Detection and Response [MDR]	Sophos MDR investigates and assesses potential security risks across the full environment 24/7, leveraging world-leading threat intelligence from Sophos X-Ops to identify risk level and prioritize response.
3.4.8	Apply deny-by-exception (blacklisting) policy to prevent the use of unauthorized software or deny-all, permit-by-exception (whitelisting) policy to allow the execution of authorized software.	Sophos Intercept X Sophos Intercept X for Server	HIPS, deep learning, anti-exploit, anti-adversary, and malicious traffic detection combine to proactively detect malicious behaviors occurring on the host.
		Sophos Mobile	Detects malicious and potentially unwanted applications installed on Android devices using Intercept X deep learning technology alongside intelligence from SophosLabs global research team. Integration with Microsoft Intune allows administrators to build conditional access policies, restricting access to applications and data when a threat is detected.
		Sophos Firewall	Allows user-based policy control over applications, websites, categories, and traffic shaping (QoS). Synchronized Application Control in Sophos Firewall identifies all networked applications in the environment running on Sophos-managed endpoints. User-based application policies enable custom-tailored application control to be added to any user, group, or network policy with the option to also apply traffic shaping.
		Sophos Intercept X Sophos Intercept X for Server	Exploit prevention capabilities stop vulnerabilities in applications and operating systems from being exploited by attackers. Endpoint Protection application control policies restrict the use of unauthorized applications. Sophos Intercept X for Server does not permit unauthorized applications from running, automatically scanning your system for known good applications, and whitelisting only those applications.
3.4.9	Control and monitor user-installed software.	Sophos Cloud Optix	Cloud Optix enables organizations to design public cloud environments to meet Amazon Web Services, Microsoft Azure, and Google Cloud Platform security best practice standards and maintain them. This agentless service continually monitors public cloud resources, providing the visibility to proactively identify unsanctioned activity, vulnerabilities, and misconfigurations.
		Sophos Managed Detection and Response [MDR]	Sophos MDR continuously monitors signals from across the security environment, including network, email, mobile, identity, endpoint and more, enabling us to quickly and accurately detect potential cybersecurity events. Anomalous behaviors and code use are detected, investigated and correlated to identify malicious activities and enable us to quickly neutralize the event.
3.4.9	Control and monitor user-installed software.	Sophos Mobile	Monitor devices for jailbreaking and side-loading of applications and deny access to email, network and other resources if device is not in compliance with policy.

No.	Security Requirements	Sophos Solution	How It Helps
		Sophos Intercept X Sophos Intercept X for Server	Exploit prevention capabilities stop vulnerabilities in applications and operating systems from being exploited by attackers. Endpoint Protection application control policies restrict the use of unauthorized applications. Sophos Intercept X for Server does not permit unauthorized applications from running, automatically scanning your system for known good applications, and whitelisting only those applications.
		Sophos Managed Detection and Response (MDR)	Sophos MDR continuously monitors signals from across the security environment, including network, email, mobile, identity, endpoint and more, enabling us to quickly and accurately detect potential cybersecurity events. Anomalous behaviors and code use are detected, investigated and correlated to identify malicious activities and enable us to quickly neutralize the event.
		Sophos Firewall	Visibility and Control over thousands of applications via customizable policy templates with granular controls based on category, risk, technology, or other undesirable characteristics (P2P apps, IMs, games and other harmful software); fully automated application security with pre-defined policy templates for commonly used enterprise applications / software packages; Synchronized Application Control in Sophos Firewall identifies all networked applications in the environment running on Sophos Managed Endpoints.

3.5 Identification and Authentication

Basic Security Requirements

3.5.1	Identify system users, processes acting on behalf of users, and devices.	Sophos Firewall	User awareness across all areas of our firewall governs all firewall policies and reporting, enabling next-gen control over applications, web surfing, bandwidth quotas, and other network resources by user/group.
		All Sophos products	Sophos' user-identity-based technology powers all policies and reporting across all Sophos products. This allows organizations to enforce role-based user-level controls over network resources and other organizational assets and trace the actions of individual users.
		Sophos Cloud Optix	Connects disparate actions with Sophos AI to identify unusual user access patterns and locations to identify credential misuse or theft. Ensures all identities only perform actions that are required for their tasks and nothing more.
3.5.2	Authenticate (or verify) the identities of users, processes, or devices, as a prerequisite to allowing access to organizational systems.	Sophos Firewall	Supports flexible multi-factor authentication options including directory services for access to key system areas.
		Sophos Central Device Encryption	Protect devices and data with full disk encryption for Windows and macOS.
		Sophos Central	Protects privileged and administrator accounts with advanced two-factor authentication. Keeps access lists and user privileges information up to date. Provides procedures to ensure that access rights are revoked if individuals no longer meet the conditions to receive access (e.g., because they change position or leave the company).
		Sophos Cloud Optix	Adopt the principle of least privilege across public cloud environments with Sophos Cloud Optix, Cloud Security posture Management solution. The SaaS based service connects disparate actions with Sophos AI to pinpoint unusual access patterns and locations to cloud provider consoles in near real time to identify credential misuse or theft. It includes an IAM visualization tool that provides a complete map of IAM relationships and allows teams to quickly and easily identify over-privileged access and create right-sized IAM policies before they are exploited in cyberattacks.
		Sophos ZTNA	Validates user identity, device health, and compliance before granting access to resources.

No.	Security Requirements	Sophos Solution	How It Helps
		Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
Derived Security Requirements			
3.5.3	Use multifactor authentication for local and network access to privileged accounts and for network access to non-privileged accounts.	Sophos Firewall	Supports flexible multi-factor authentication options including directory services for access to key system areas. Flexible and powerful segmentation options via zones and VLANs provide ways to separate levels of trust on your network while enabling added protection against lateral movement between different parts of your network.
		Sophos Switch	Allows configuration of VLANs to segment your internal traffic and reduce the attack surface in case of an infection or breach. Allows network access control that enables you to authenticate users using LDAP, MAC address, or other authentication methods to connect to a network. This prevents unauthenticated users and devices from gaining access to your LAN.
		Sophos Cloud Optix	Adopt the principle of least privilege across public cloud environments with Sophos Cloud Optix, Cloud Security posture Management solution. The SaaS based service connects disparate actions with Sophos AI to pinpoint unusual access patterns and locations to cloud provider consoles in near real time to identify credential misuse or theft. It includes an IAM visualization tool that provides a complete map of IAM relationships and allows teams to quickly and easily identify over-privileged access and create right-sized IAM policies before they are exploited in cyberattacks.
		Sophos Central	Protects privileged and administrator accounts with advanced two-factor authentication. Keeps access lists and user privileges information up to date. Provides procedures to ensure that access rights are revoked if individuals no longer meet the conditions to receive access (e.g., because they change position or leave the company).
		Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
3.5.7	Enforce a minimum password complexity and change of characters when new passwords are created.	Sophos Central	Disables or removes default passwords. Passwords are sufficiently complex to withstand targeted "brute force" attacks and must be rotated periodically.
		Sophos Firewall	Allows strong passphrase policy to be applied for admin accounts in terms of complexity, length, password reuse and use of a single dictionary word.
3.5.8	Prohibit password reuse for a specified number of generations.	Sophos Firewall	Allows strong passphrase policy to be applied for admin accounts in terms of complexity, length, password reuse, and use of a single dictionary word.
3.6 Incident Response			
Basic Security Requirements			
3.6.1	Establish an operational incident-handling capability for organizational systems that includes preparation, detection, analysis, containment, recovery, and user response activities.	Synchronized Security feature in Sophos products	Sophos Firewall with Security Heartbeat™ allows next-generation endpoint and network security to continuously share meaningful information about suspicious events across extended IT ecosystem; detects compromised / unauthorized endpoint device; allows automated and near instantaneous isolation of this endpoint, preventing it from leaking confidential data.

No.	Security Requirements	Sophos Solution	How It Helps
		All Sophos products	Generate security event logs that can be integrated into a centralized monitoring program for incident detection and response.
		Sophos Intercept X Sophos Intercept X for Server	Integrates innovative technology like deep learning, anti-exploit, and anti-adversary into malicious traffic detection with real-time threat intelligence to help prevent, detect, and remediate threats with ease across all devices and platforms. Includes rollback to original files after a ransomware or master boot record attack. Provides forensic-level remediation by eradicating malicious code as well as eliminating nasty registry key changes created by malware.
		Sophos XDR	Goes beyond the endpoint, pulling in rich network, email, cloud and mobile data sources to give you an even broader picture of your cybersecurity posture with the ability to drill down into granular detail when needed. With data from each product flowing into the Sophos Data Lake you can quickly answer business critical questions, correlate events from different data sources and take even more informed action.
		Sophos Managed Detection and Response (MDR)	Sophos MDR detects and investigates suspicious events from across the full security environment to identify threats and appropriate response activities. Data is collected across endpoint, network, identity email, and more, and then correlated using powerful AI tools, threat intelligence and human expertise to identify impact and response.
		Sophos Rapid Response Service	Enables fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
		Sophos Cloud Optix	Scans cloud resources for security misconfigurations, profiling any alerts by risk level to help teams focus on the priority areas, and provide detailed remediation guidance to fix those issues.
		Sophos Firewall	Allows real-time insights into network and user events, quick and easy access to historical data, and easy integration with third-party remote management and monitoring tools (RMMs).
3.6.2	Track, document, and report incidents to designated officials and/or authorities both internal and external to the organization.	Sophos Managed Detection and Response (MDR)	Sophos MDR includes full incident response, delivered by a dedicated team of response specialists who are experts at battling adversaries. Clear procedures and documentation enable consistent info sharing.

3.8 Media Protection

Derived Security Requirements

3.8.7	Control the use of removable media on system components.	Sophos Intercept X Sophos Intercept X for Server	Device Control allows admins to control the use of removable media through policy settings.
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3.9 Personnel Security

Basic Security Requirements

3.9.1	Screen individuals prior to authorizing access to organizational systems containing CUI.	Sophos Firewall	Supports flexible multi-factor authentication options including directory services for access to key system areas.
		Sophos Central	Protects privileged and administrator accounts with advanced two-factor authentication.
		Sophos Central Device Encryption	Protect devices and data with full disk encryption for Windows and macOS. Verify device encryption status and demonstrate compliance.
		Sophos ZTNA	Validates user identity, device health, and compliance before granting access to resources.

No.	Security Requirements	Sophos Solution	How It Helps
		Sophos Wireless	Creates dynamic encrypted Wi-Fi sessions, protecting information in transit on Sophos managed networks and hotspots.
		Sophos Email	Granular control of data breach prevention policies, including multi-rule policies for groups and individual users with seamless integration of encryption. Create custom CCLs using Sophos Content Control Lists or customize out of the box templates for specific CCLs. Choose from a variety of policy outcomes including block, drop attachment, quarantine as well as log and continue mode.
		Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
3.9.2	Ensure that organizational systems containing CUI are protected during and after personnel actions such as terminations and transfers.	Sophos Central	Protects privileged and administrator accounts with advanced two-factor authentication. Keeps access lists and user privileges information up to date. Provides procedures to ensure that access rights are revoked if individuals no longer meet the conditions to receive access [e.g., because they change position or leave the company].

3.11 Risk Assessment

Basic Security Requirements

3.11.1	Periodically assess the risk to organizational operations (including mission, functions, image, or reputation), organizational assets, and individuals, resulting from the operation of organizational systems and the associated processing, storage, or transmission of CUI.	Synchronized Security feature in Sophos products	Shares telemetry and health status, enabling coordinated isolation, detection, and malware remediation across servers, endpoints, and firewalls – stopping advanced attacks.
		Sophos XDR	Detect and investigate across endpoint, server, firewall, and other data sources. Get a holistic view of your organization's cybersecurity posture with the ability to drill down into granular detail when needed. The Sophos Data Lake allows to quickly answer business critical questions, correlate events from different data sources and take even more informed action.
		Sophos Cloud Optix	Cloud Optix enables organizations to design public cloud environments to meet Amazon Web Services, Microsoft Azure, and Google Cloud Platform security best practice standards and maintain them. This agentless service continually monitors public cloud resources, providing the visibility to proactively identify unsanctioned activity, vulnerabilities, and misconfigurations.
		Sophos Managed Detection and Response (MDR)	Sophos MDR detects and investigates suspicious events from across the full security environment to identify threats and appropriate response activities. Data is collected across endpoint, network, identity email, and more, and then correlated using powerful AI tools, threat intelligence and human expertise to identify impact and response.
		Sophos Rapid Response Service	Provides incredibly fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
		All Sophos products	Generate security event logs that can be integrated into a centralized monitoring program for incident detection and response.

Derived Security Requirements

3.11.2	Scan for vulnerabilities in organizational systems and applications periodically and when new vulnerabilities affecting those systems and applications are identified.	Sophos Firewall	Visibility and control over thousands of applications via customizable policy templates with granular controls based on category, risk, technology, or other undesirable characteristics (P2P apps, IMs, games and other harmful software); fully automated application security with pre-defined policy templates for commonly used enterprise applications / software packages; Synchronized Application Control in Sophos Firewall identifies all networked applications in the environment running on Sophos Managed Endpoints.
		Sophos Mobile	Monitor mobile devices for jailbreaking and side-loading of applications Deny access to email, network, and other resources if device is not in compliance with policy.

No.	Security Requirements	Sophos Solution	How It Helps
3.11.3	Remediate vulnerabilities in accordance with risk assessments.	Synchronized Security in Sophos products	Sophos Firewall's Synchronized Security Endpoint Integration identifies all unknown, evasive, and custom applications running on your network so you can easily identify rogue applications like Psiphon and block them.
		Sophos Cloud Optix	Cloud Optix scans cloud resources for security misconfigurations, profiling any alerts by risk level to help teams focus on the priority areas, and provide detailed remediation guidance to fix those issues.
		Sophos Managed Detection and Response (MDR)	Sophos MDR investigates and assesses potential security risks across the full environment 24/7, leveraging world-leading threat intelligence from Sophos X-Ops to identify risk level and prioritize response.
		Sophos Intercept X Sophos Intercept X for Server	HIPS, deep learning, anti-exploit, anti-adversary, and malicious traffic detection combine to proactively detect malicious behaviors occurring on the host. Endpoint Protection application control policies restrict the use of unauthorized applications.
3.11.3	Remediate vulnerabilities in accordance with risk assessments.	Synchronized Security in Sophos products	Shares telemetry and health status, enabling coordinated isolation, detection, and malware remediation across servers, endpoints, and firewalls.
		Sophos Cloud Optix	Continuously monitors and detects drift in configuration standards, and prevents, detects, and automatically remediates accidental or malicious changes in resource configuration.
		Sophos Managed Detection and Response (MDR)	24/7 detection, investigation and neutralization of suspicious activities by human experts enables us to identify and stop exploitation of vulnerabilities by adversaries. Sophos X-Ops experts keep operators up-to-date on the latest threat and vulnerability developments.
		Sophos Rapid Response Service	Enables fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
		Sophos Intercept X Sophos Intercept X for Server	Integrates innovative technology like deep learning, anti-exploit, and anti-adversary into malicious traffic detection with real-time threat intelligence to help prevent, detect, and remediate threats with ease across all devices and platforms.

3.12 Security Assessment

Basic Security Requirements

3.12.2	Develop and implement plans of action designed to correct deficiencies and reduce or eliminate vulnerabilities in organizational systems.	Sophos Intercept X Sophos Intercept X for Server	Intercept X consistently looks at reported false positives and false negatives to ensure the product is being continuously improved. It integrates a deep learning malware detection model that can scale to hundreds of millions of training samples and can 'memorize' the entire observable threat landscape as part of its training process. It is regularly trained by our SophosLabs team to stay up to date over time.
		Sophos Managed Detection and Response (MDR)	Sophos MDR includes full incident response, delivered by a 24/7 team of response experts. Once an incident is remediated, Sophos MDR performs full root cause analysis which enables the environment to be hardened and response plans and strategies to be updated to incorporate learnings.
		Sophos Rapid Response Service	Enables fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
		SophosLabs	Delivers the global threat intelligence advantage with Sophos' state-of-the-art big data analytics system that efficiently processes millions of emails, URLs, files, and other data points analyzed each day. This data, along with our extensive experience, enables us to develop new definitions, detect entire classes of threats, and even new variants. And, Live Protection and Live Anti-spam offer the data and expert analysis from SophosLabs in real time.

No.	Security Requirements	Sophos Solution	How It Helps
3.13 System and Communications Protection			
Basic Security Requirements			
3.13.1	Monitor, control, and protect communications (i.e., information transmitted or received by organizational systems) at the external boundaries and key internal boundaries of organizational systems.	Sophos Firewall	Allows for granular rule-based traffic control to specific ports and services at perimeter ingress and egress points, and can control remote access authentication and user monitoring at the perimeter.
		Sophos Intercept X Sophos Intercept X for Server	HIPS, Deep Learning, Anti-exploit, Anti-adversary, and malicious traffic detection combine to proactively detect malicious behaviors occurring on the host.
		Sophos Central Device Encryption	Protect devices and data with full disk encryption for Windows and macOS. Verify device encryption status and demonstrate compliance.
		Sophos Managed Detection and Response (MDR)	24/7 monitoring of the environment plus investigation and neutralization of malicious activities secures against data loss through adversarial activities.
		Sophos Rapid Response Service	Provides incredibly fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
		Sophos Email	Sophos SPX encryption provides encryption in transit and at rest. SPX encryption is able to dynamically encapsulate email content and attachments into a secure encrypted PDF to ensure compliance.
Derived Security Requirements			
3.13.4	Prevent unauthorized and unintended information transfer via shared system resources.	Sophos Firewall Sophos Intercept X Sophos Intercept X for Server	Data Leakage Prevention (DLP) capabilities in Sophos products can detect sensitive data and can prevent leaks of such information via email, uploads, and local copying.
		Sophos Intercept X Sophos Intercept X for Server	Device Control allows admins to control the use of removable media through policy settings.
		Sophos Central Device Encryption	Protect devices and data with full disk encryption for Windows and macOS.
		Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
3.13.5	Implement subnetworks for publicly accessible system components that are physically or logically separated from internal networks.	Sophos Firewall	Flexible and powerful segmentation options via zones and VLANs provide ways to separate levels of trust on your network while enabling added protection against lateral movement between different parts of your network.
		Sophos Switch	Allows configuration of VLANs to segment your internal traffic and reduce the attack surface in case of an infection or breach. Allows network access control that enables you to authenticate users using LDAP, MAC address, or other authentication methods to connect to a network. This prevents unauthenticated users and devices from gaining access to your LAN.
		Sophos Mobile	Supports BYOD environments through the Android Enterprise Work Profile and iOS User Enrolment modes of management. Corporate emails and apps can be deployed to a device while these remain separate from a user’s personal data. Admins retain control over corporate content without intruding on the users’ privacy.

No.	Security Requirements	Sophos Solution	How It Helps
3.13.8	Implement cryptographic mechanisms to prevent unauthorized disclosure of CUI during transmission unless otherwise protected by alternative physical safeguards.	Sophos Email	Granular control of data breach prevention policies, including multi-rule policies for groups and individual users with seamless integration of encryption. Create custom CCLs using Sophos Content Control Lists or customize out of the box templates for specific CCLs. Choose from a variety of policy outcomes including block, drop attachment, quarantine as well as log and continue mode.
		Sophos Mobile	Flexible compliance rules monitor device health and can automatically deny access to sensitive data in case of a compromised device. A rich set of device management capabilities, containers, and market-leading encryption keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices.
		Sophos Wireless	Creates dynamic encrypted Wi-Fi sessions, protecting information in transit on Sophos managed networks and hotspots.
		Sophos Firewall	Facilitates two-factor authentication for VPN connections, with granular RADIUS/TACACS integration.
3.13.11	Employ FIPS-validated cryptography when used to protect the confidentiality of CUI.	Sophos Firewall	The Sophos Cryptographic Module incorporated into the Sophos Firewall systems provides FIPS 140-2 validated cryptography for the protection of sensitive information.
3.13.13	Control and monitor the use of mobile code.	Sophos Mobile	Monitor mobile devices for jailbreaking and side-loading of applications. Deny access to email, network, and other resources if device is not in compliance with policy.
		Sophos XDR	Goes beyond the endpoint, pulling in rich network, email, cloud, and mobile data sources to give you an even broader picture of your cybersecurity posture with the ability to drill down into granular detail when needed. With data from each product flowing into the Sophos Data Lake you can quickly answer business critical questions, correlate events from different data sources and take even more informed action.
		Sophos Managed Detection and Response (MDR)	Sophos MDR continuously monitors signals from across the security environment, including network, email, mobile, identity, endpoint and more, enabling us to quickly and accurately detect potential cybersecurity events. Anomalous behaviors and code use are detected, investigated, and correlated to identify malicious activities and enable us to quickly neutralize the event.
		Sophos Intercept X Sophos Intercept X for Server	Endpoint Protection application control policies restrict the use of unauthorized applications.
		Sophos Intercept X for Server	Server Lockdown allows only trusted whitelisted applications and associated files to run.
3.13.15	Protect the authenticity of communications sessions.	Sophos Email	Sophos SPX encryption provides encryption in transit and at rest. SPX encryption is able to dynamically encapsulate email content and attachments into a secure encrypted PDF to ensure compliance.
		Synchronized Security feature in Sophos products	Shares telemetry and health status, enabling coordinated isolation, detection, and malware remediation across servers, endpoints, and firewalls – stopping advanced attacks.
		Sophos Cloud Optix	Establishes guardrails to prevent, detect, and remediate accidental or malicious changes in network configuration, network traffic, resource configuration, and user behavior or activities.
		Sophos Managed Detection and Response (MDR)	Sophos MDR continuously monitors signals from across the security environment, including network, email, mobile, identity, endpoint and more, enabling us to quickly and accurately detect potential cybersecurity events. Anomalous behaviors and code use are detected, investigated, and correlated to identify malicious activities and enable us to quickly neutralize the event.
3.13.16	Protect the confidentiality of CUI at rest.	Sophos Firewall Sophos Intercept X Sophos Intercept X for Server	Data Leakage Prevention (DLP) capabilities in Sophos products can detect sensitive data and can prevent leaks of such information via email, uploads, and local copying.

No.	Security Requirements	Sophos Solution	How It Helps
		Sophos Managed Detection and Response (MDR)	24/7 monitoring of the environment plus investigation and neutralization of malicious activities secures against data loss through adversarial activities.
		Sophos Mobile	A rich set of device management capabilities keeps sensitive business email and documents protected on mobile devices – even for users working with personal devices. Flexible compliance rules monitor device health and flag deviation from desired settings.
		Sophos Cloud Optix	Public cloud security benchmark assessments proactively identify storage services (e.g. Amazon S3), hard drive snapshots, and databases without encryption enabled, or with public access enabled and ports exposed. Guided remediation then instructs the administrator on how to protect these services and data at rest.
		Sophos ZTNA	Validates user identity, device health, and compliance before granting access to resources.
		Sophos Central Device Encryption	Protect devices and data with full disk encryption for Windows and macOS. Verify device encryption status and demonstrate compliance.

3.14 System and Information Integrity

Basic Security Requirements

3.14.1	Identify, report, and correct system flaws in a timely manner.	All Sophos products	Generate security event logs that can be integrated into a centralized monitoring program for incident detection and response.
		Sophos XDR	Goes beyond the endpoint, pulling in rich network, email, cloud and mobile data sources to give you an even broader picture of your cybersecurity posture with the ability to drill down into granular detail when needed. With data from each product flowing into the Sophos Data Lake you can quickly answer business critical questions, correlate events from different data sources and take even more informed action.
		Sophos Cloud Optix	Scans cloud resources for security misconfigurations, profiling any alerts by risk level to help teams focus on the priority areas, and provide detailed remediation guidance to fix those issues.
		Sophos Managed Detection and Response (MDR)	Sophos MDR detects and investigates suspicious events from across the full security environment to identify threats and appropriate response activities. Data is collected across endpoint, network, identity email, and more, and then correlated using powerful AI tools, threat intelligence and human expertise to identify impact and response.
		Sophos Rapid Response Service	Enables fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
		Synchronized Security feature in Sophos products	Shares telemetry and health status, enabling coordinated isolation, detection, and malware remediation across servers, endpoints, and firewalls – stopping advanced attacks.
		Sophos Intercept X Sophos Intercept X for Server	HIPS, deep learning, anti-exploit, anti-adversary, and malicious traffic detection combine to proactively detect malicious behaviors occurring on the host. Endpoint Protection application control policies restrict the use of unauthorized applications.
3.14.2	Provide protection from malicious code at designated locations within organizational systems.	Sophos Intercept X Sophos Intercept X for Server	Integrates innovative technology like deep learning, anti-exploit, and anti-adversary into malicious traffic detection with real-time threat intelligence to help prevent, detect and remediate threats with ease.
		Sophos Cloud Optix	Continuously monitors and detects drift in configuration standards, and prevents, detects, and automatically remediates accidental or malicious changes in resource configuration.

No.	Security Requirements	Sophos Solution	How It Helps
		Sophos Managed Detection and Response (MDR)	Sophos MDR continuously monitors signals from across the security environment, including network, email, mobile, identity, endpoint and more, enabling us to quickly and accurately detect potential cybersecurity events. Anomalous behaviors and code use are detected, investigated, and correlated to identify malicious activities and enable us to quickly neutralize the event
		Sophos Rapid Response Service	Enables fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
		Sophos Email	Uses real-time threat intelligence to detect and block unwanted email at the gateway, and our anti-spam engine catches the rest – including the latest phishing attacks, malicious attachments, and snowshoe spam.
		Sophos Sandboxing	Complements Sophos web and email security products and Sophos Firewall by inspecting and blocking executables and documents containing executable content before the file is delivered to the user's device.
		Sophos Intercept X for Mobile	Detects malicious and potentially unwanted applications installed on Android devices using Intercept X deep learning technology alongside intelligence from SophosLabs global research team. Integration with Microsoft Intune allows administrators to build conditional access policies, restricting access to applications and data when a threat is detected.
3.14.3	Monitor system security alerts and advisories and take action in response.	Synchronized Security feature in Sophos products	Shares telemetry and health status, enabling coordinated isolation, detection and malware remediation across servers, endpoints, and firewalls – stopping advanced attacks.
		Sophos Intercept X Sophos Intercept X for Server	Integrates innovative technology like deep learning, anti-exploit, and anti-adversary into malicious traffic detection with real-time threat intelligence to help prevent, detect and remediate threats with ease. Get a root cause analysis of an attack with complete visibility on the how and where of the attack, along with recommendations on what your next steps should be.
		Sophos Managed Detection and Response (MDR)	Sophos MDR includes full incident response, delivered by a dedicated team of response specialists who are experts at battling adversaries. Clear procedures and documentation enable consistent info sharing.
		Sophos Rapid Response Service	Enables fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
		Sophos Cloud Optix	Continuously monitors and detects drift in configuration standards, and prevents, detects, and automatically remediates accidental or malicious changes in resource configuration.
		Sophos Firewall	Leverages Sophos' industry-leading machine learning technology (powered by SophosLabs Intelix) to instantly identify the latest ransomware and unknown threats before they get on your network. Delivers advanced protection from the latest drive-by and targeted web malware, URL/Malicious site filtering, Web Application Filtering, Cloud-based filtering for offsite protection.
Derived Security Requirements			
3.14.4	Update malicious code protection mechanisms when new releases are available.	Sophos Intercept X Sophos Intercept X for Server	Intercept X continuously looks at reported false positives and false negatives to ensure the product is being continuously improved. It integrates a deep learning malware detection model that can scale to hundreds of millions of training samples and can 'memorize' the entire observable threat landscape as part of its training process. It is regularly trained by our SophosLabs team to stay up to date over time.
3.14.6	Monitor organizational systems, including inbound and outbound communications traffic, to detect attacks and indicators of potential attacks.	All Sophos products	Generate security event logs that can be integrated into a centralized monitoring program for incident detection and response.
		Sophos Cloud Optix	Scans cloud resources for security misconfigurations, profiling any alerts by risk level to help teams focus on the priority areas, and provide detailed remediation guidance to fix those issues.

No.	Security Requirements	Sophos Solution	How It Helps
		Sophos XDR	Goes beyond the endpoint, pulling in rich network, email, cloud and mobile data sources to give you an even broader picture of your cybersecurity posture with the ability to drill down into granular detail when needed. With data from each product flowing into the Sophos Data Lake you can quickly answer business critical questions, correlate events from different data sources and take even more informed action.
		Sophos Managed Detection and Response (MDR)	Sophos MDR investigates suspicious signals, correlating data and behaviors and leveraging Sophos X-Ops threat intelligence for context and insights. On notification of vulnerabilities, Sophos MDR proactively hunts for exposure to enable swift remediation.
		Sophos Rapid Response Service	Enables fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.
3.14.7	Identify unauthorized use of organizational systems.	Synchronized Security feature in Sophos products	Synchronized Security allows Sophos Firewall and Intercept X endpoint protection to work together to identify, isolate and clean up devices that have been compromised, preventing them from leaking confidential data. When the threat is neutralized and there is no risk of lateral movement, network connectivity is restored.
		Sophos Intercept X Sophos Intercept X for Server	HIPS, Deep Learning, Anti-exploit, Anti-adversary, and malicious traffic detection combine to proactively detect malicious behaviors occurring on the host.
		All Sophos products	Generate security event logs that can be integrated into a centralized monitoring program for incident detection and response.
		Sophos Cloud Optix	Scans cloud resources for security misconfigurations, profiling any alerts by risk level to help teams focus on the priority areas, and provide detailed remediation guidance to fix those issues.
		Sophos XDR	Goes beyond the endpoint, pulling in rich network, email, cloud and mobile data sources to give you an even broader picture of your cybersecurity posture with the ability to drill down into granular detail when needed. With data from each product flowing into the Sophos Data Lake you can quickly answer business critical questions, correlate events from different data sources and take even more informed action.
		Sophos Managed Detection and Response (MDR)	Sophos MDR investigates suspicious signals, correlating data and behaviors and leveraging Sophos X-Ops threat intelligence for context and insights. On notification of vulnerabilities, Sophos MDR proactively hunts for exposure to enable swift remediation.
		Sophos Rapid Response Service	Enables fast assistance, identifying and neutralizing active threats against your organization – delivered by an expert team of incident responders.

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