

| Risk ID | NIST Control ID | Control Name |
|---------|-----------------|---------------------------------------|
| R-001 | IA-2(1) | Multi-Factor Authentication |
| R-003 | SI-4 | System Monitoring |
| R-008 | IR-4 | Incident Handling |
| R-004 | PL-2 | System Security Plan |
| R-005 | SR-3 | Supply Chain Risk Management |
| R-002 | SC-28 | Protection of Information at Rest |
| R-007 | RA-5 | Vulnerability Scanning |
| R-012 | AU-6 | Audit Review, Analysis, and Reporting |
| R-001 | AC-2 | Account Management |
| R-001 | AC-6 | Least Privilege |
| R-006 | AC-17 | Remote Access |
| R-010 | CM-3 | Configuration Change Control |
| R-009 | MP-6 | Media Sanitization |
| R-011 | AT-2 | Security Awareness Training |
| N/A | CP-9 | System Backup |
| N/A | PE-6 | Monitoring Physical Access |
| N/A | SI-3 | Malicious Code Protection |
| N/A | SC-7 | Boundary Protection |
| R-010 | CM-2 | Baseline Configuration |
| R-002 | SC-13 | Cryptographic Protection |

| Current State | Implementation Status |
|--|-----------------------|
| MFA not configured for any users or systems | Not Implemented |
| No SIEM or centralized monitoring capability | Not Implemented |
| No formal incident handling capability | Not Implemented |
| No formal cybersecurity strategy or security plans | Not Implemented |
| No vendor security assessment framework | Not Implemented |
| No data classification or DLP | Not Implemented |
| Ad-hoc scanning, no formal VM program | Partially Implemented |
| Logs not reviewed or analyzed | Not Implemented |
| Weak account management practices | Partially Implemented |
| Least privilege not enforced | Not Implemented |
| VPN lacks MFA, contractor access not managed | Partially Implemented |
| No formal change management process | Not Implemented |
| No data disposal procedures | Not Implemented |
| Basic induction training only | Partially Implemented |
| Regular backups conducted and tested | Implemented |
| 24/7 physical security monitoring | Implemented |
| Antivirus deployed | Implemented |
| Firewalls configured and maintained | Implemented |
| SOE for laptops only | Partially Implemented |
| Default encryption, no policy | Partially Implemented |

| Evidence / Observations |
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| No MFA deployment observed. Users authenticate with username/password only. |
| No SIEM solution. Limited to antivirus alerts from Microsoft Defender. |
| Cybersecurity analyst responds ad-hoc. No documented procedures or runbooks. |
| Only generic IT policy exists. No information security strategy or system security plans. |
| Contracts reviewed by procurement/finance only. No cybersecurity vendor assessments. |
| Data encrypted by default in O365/Azure. No DLP, classification, or governance. |
| Qualys purchased but used ad-hoc. Large number of high/severe vulnerabilities unresolved. |
| Logs generated but no review process. No centralized log management. |
| Active Directory exists. No RBAC, no access reviews, shared admin passwords, no approval workflow. |
| Access granted upon request without formal approval. No least privilege enforcement or reviews. |
| VPN solution exists. No MFA for VPN. Contractor remote access not controlled. |
| No documented change management or change control procedures. |
| No documented data disposal or media sanitization procedures. |
| Induction training includes basic cybersecurity. No ongoing training or phishing simulations. |
| IT team takes regular backups. Backups tested periodically. |
| State-of-the-art CCTV, 24/7 monitoring for labs and facilities. |
| Microsoft Defender deployed across endpoints. IT team responds to alerts. |
| Palo Alto Next Gen Firewalls configured, audited annually, regularly updated. |
| SOE images all laptops with latest Windows. No baselines for servers or cloud resources. |
| Encryption by default in O365/Azure. No encryption policy or key management. |

| Recommendations |
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| Deploy MFA for all users (O365, Azure AD, VPN). Start with privileged accounts. |
| Deploy SIEM (e.g., Sentinel, Splunk). Onboard all critical systems and applications. |
| Develop incident response plan, establish IR team, create runbooks and playbooks. |
| Develop organizational cybersecurity strategy and system-specific security plans. |
| Establish TPRM program with vendor assessment questionnaires and security requirements. |
| Implement data classification program, deploy DLP solution, establish data governance. |
| Establish formal vulnerability management program with regular scanning and remediation SLAs. |
| Implement log review procedures, deploy centralized logging, define review frequency. |
| Implement RBAC, conduct quarterly access reviews, eliminate shared accounts, establish approval process. |
| Implement least privilege model, conduct privilege reviews, remove excessive permissions. |
| Implement MFA for VPN, establish contractor access management procedures. |
| Implement change management process with approvals, documentation, and testing. |
| Develop and implement media sanitization and data disposal procedures. |
| Enhance training program with annual refreshers, phishing simulations, role-based training. |
| Continue current backup practices. Document backup procedures. |
| Maintain current physical security controls. |
| Consider enhanced endpoint protection (EDR). Ensure coverage on all endpoints. |
| Continue current firewall practices. Consider IPS/IDS capabilities. |
| Extend baseline configurations to all systems including cloud infrastructure. |
| Develop encryption policy, implement key management procedures. |