

Attack ID	Attack	Access Vector	Required Priv	Req Priv Level	Authentication	System Req Score	Access Complexity	Level of Interaction	Likelihood of Discovery	Ease of Execution	Likelihood of Failure	Tech Requirement Score	Exploitability	Likelihood of Exploit	Accessibility of Information	Environmental Factor Score	Attack Frequency	Attack Score
V1	OS Command Injection	1	0.3	0.3	0.7	10.29	0.4	1	1	0.9	0	16.2	0.95	1	1	28.5	10	64.99
V2	XSS	1	0.3	0.1	1	18.9	0.1	1	1	0.7	0	18.9	0.9	1	1	27	10	74.8
V3	SQL Injection	1	0.1	0.1	0.7	17.01	0.4	1	1	0.9	0	16.2	0.95	1	1	28.5	10	71.71
V4	Error Message Exposure	0.8	0.1	0	0.6	12.96	0.7	1	0.6	0.7	0.2	3.024	0.85	0.6	0.33	5.049	10	31.033
V5	Cross Site Request Forgery	1	0	0.1	1	27	0	0.3	1	0.9	0	8.1	0.9	1	1	27	10	72.1
V6	Race Condition	1	0.1	0.1	0.7	17.01	0.7	1	0.2	0.7	0.2	1.008	0.85	0.6	0.66	10.098	10	38.116
V7	Unrestricted Upload	1	0.1	0.1	0.7	17.01	0.4	0.8	0.2	0.7	0	2.016	0.95	0.6	0.66	11.286	10	40.312
V8	Open Redirect	1	0.1	0.1	0.7	17.01	0.4	1	0.6	0.9	0	9.72	1	1	1	30	10	66.73
V9	Path Traversal	0.8	0.1	0.1	0.6	11.664	0.4	1	0.6	0.9	0	9.72	0.9	0.6	1	16.2	10	47.584
V10	Improper Control of Filenames	0.8	0.1	0.1	0.6	11.664	0.1	1	0.6	0.9	0.2	11.664	0.9	0.6	1	16.2	10	49.528
V11	Buffer Overflow	1	0	0	0.7	21	0	1	1	1	0.2	24	0.9	0.6	1	16.2	10	71.2
V12	Improper Validation of Array Indices	1	0	0	0.6	18	0	1	1	1	0.2	24	0.85	0.6	1	15.3	10	67.3
V13	Unrestricted Allocation of Resources	1	0	0	0.7	21	0	1	1	1	0	30	0.85	1	1	25.5	10	86.5
V14	Integer Overflow or Wraparound	1	0	0	0.6	18	0	1	1	1	0.2	24	0.85	0.6	0.66	10.098	10	62.098
V15	Download of Code Without Integrity Checks	1	0.1	0.1	0.6	14.58	0.4	0.8	0.6	1	0	8.64	0.9	1	1	27	10	60.22
V16	Improper Check for Unusual or Exceptional Conditions	1	0	0	0.6	18	0.4	1	0.6	1	0.2	8.64	0.9	0.6	1	16.2	10	52.84
V17	Improper Authorisation	1	0.1	0.1	0.6	14.58	0.4	1	0.6	1	0	10.8	0.9	1	1	27	10	62.38
V18	Missing Authentication for Critical Factors	1	0.1	0.1	0.7	17.01	0	1	0.6	1	0	18	0.9	1	1	27	10	72.01
V19	Missing Encryption on Sensitive Data	1	0.1	0.3	0.7	13.23	0	1	0.6	0.9	0	16.2	0.95	1	1	28.5	10	67.93
V20	Risky or Broken Cryptographic Algorithms	1	0.1	0.3	0.7	13.23	0.4	1	0.2	0.7	0.2	2.016	0.9	0.6	1	16.2	10	41.446
V21	Incorrect Permission Assignment for Critical Resources	1	0.1	0.1	0.7	17.01	0.4	1	0.6	0.9	0.2	7.776	0.9	0.6	1	16.2	10	50.986
V22	Use of Hard Coded Credentials	1	0.1	0	0.7	18.9	0	1	1	1	0	30	1	1	1	30	10	88.9
V23	Spear Phishing (Credentials)	1	0	0.1	1	27	0.1	0.1	1	1	0	2.7	1	1	1	30	10	69.7
V24	Spear Phishing (Malware)	1	0	0.1	1	27	0.1	0.1	1	0.9	0	2.43	1	1	1	30	10	69.43
V25	Pretexting (Credentials)	1	0	0.1	1	27	0.1	0.1	1	1	0	2.7	1	1	1	30	10	69.7
V26	Phishing (Credentials)	1	0	0.1	1	27	0	0.3	1	1	0	9	1	1	1	30	10	76
V27	Phishing (Malware)	1	0	0.1	1	27	0	0.3	1	1	0	9	1	1	1	30	10	76
V28	Watering Hole (Malware)	1	0	0.1	1	27	0	0.3	1	0.9	0	8.1	1	1	1	30	10	75.1
V29	Baiting (Malware)	1	0	0.1	1	27	0	0.3	1	0.9	0	8.1	1	1	1	30	10	75.1
V30	Port Scanning Attacks	1	0	0.1	1	27	0.1	1	1	1	0	27	1	1	1	30	10	94
V31	Unauthorised Direct Access	1	0	0.1	1	27	0.1	1	1	1	0	27	1	1	1	30	10	94
V32	IP Spoofing Attacks	1	0	0.1	1	27	0.4	1	0.6	1	0.2	8.64	1	1	1	30	10	75.64
V33	Insecure Third Party Software	0.7	0.3	0.3	1	10.29	0.7	1	0.2	0.9	0.2	1.296	0.85	0.2	0.33	1.683	10	23.289
V34	Infected BYOD	0.2	0.3	0.3	0.8	2.352	0.7	0.3	0.6	0.9	0.4	0.8748	1	1	1	30	10	43.2288
V35	Passive Monitoring	1	0	0.1	1	27	0.4	0.9	1	0.7	0	11.34	1	1	1	30	10	78.34
V36	Session Hijacking	1	0	0.1	0.7	18.9	0.7	0.7	0.6	0.7	0.4	1.5876	1	1	0.66	19.8	10	50.2876

Control	Level	Control Code	Vulnerability													
			V23	V24	V25	V26	V27	V28	V29	V30	V31	V32	V33	V34	V35	V36
Automated Inventory Scanning and Management	Implement Once	C1-1	0.1	-	-	0.1	0.1	-	-	-	0.2	0.2	0.2	-	0.2	-
	Yearly	C1-2	0.1	-	-	0.1	0.1	-	-	-	0.25	0.25	0.25	-	0.25	-
	Monthly	C1-3	0.5	-	-	0.5	0.5	-	-	-	0.5	0.5	0.5	-	0.5	-
	Weekly	C1-4	0.7	-	-	0.7	0.7	-	-	-	0.6	0.6	0.6	-	0.6	-
	Daily/ On Demand	C1-5	0.95	-	-	0.95	0.95	-	-	-	0.7	0.7	0.7	-	0.75	-
Automated Patching Tools	Implement Once	C2-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Yearly	C2-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Monthly	C2-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Weekly	C2-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Daily/ On Demand	C2-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Automated Vulnerability Scanning Tools	Yearly	C3-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Monthly	C3-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Weekly	C3-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Daily/ On Demand	C3-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anti-Malware Software	Yearly	C4-1	-	0.5	-	-	-	0.5	0.5	0.5	-	-	-	0.1	-	-
	Monthly	C4-2	-	0.7	-	-	-	0.7	0.7	0.7	-	-	-	0.3	-	-
	Weekly	C4-3	-	0.9	-	-	-	0.9	0.9	0.9	-	-	-	0.5	-	-
	Daily/ On Demand	C4-4	-	0.95	-	-	-	0.95	0.95	0.95	-	-	-	0.7	-	-
Deployment of Network Firewalls	Lax	C5-1	0.2	-	-	0.2	0.2	-	-	-	0.7	0.7	0.7	-	0.3	0.1
	Moderate	C5-2	5	-	-	5	5	-	-	-	0.9	0.9	0.9	-	0.5	0.3
	Strict	C5-3	0.7	-	-	0.7	0.7	-	-	-	0.95	0.95	0.95	-	0.7	0.5
Host Based IPS	Lax	C6-1	0.2	-	-	0.2	0.2	-	-	-	0.7	0.7	0.7	-	-	0.3
	Moderate	C6-2	0.5	-	-	0.5	0.5	-	-	-	0.9	0.9	0.9	-	-	0.5
	Strict	C6-3	0.7	-	-	0.7	0.7	-	-	-	0.95	0.95	0.95	-	-	0.7
Deploy Web Application Firewalls	Lax	C7-1	-	0.3	-	-	-	0.3	0.3	0.3	-	-	-	-	-	-
	Moderate	C7-2	-	0.5	-	-	-	0.5	0.5	0.5	-	-	-	-	-	-
	Strict	C7-3	-	0.7	-	-	-	0.7	0.7	0.7	-	-	-	-	-	-
Deploy DLP Based Systems	Implement Once	C8-1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7
Use of Secure Config for OS	Basic	C9-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Advanced	C9-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Complete	C9-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Execution Control on Removable Media	Lax	C10-1	-	-	-	-	-	-	-	0.7	-	-	-	0.1	0.1	-
	Moderate	C10-2	-	-	-	-	-	-	-	0.8	-	-	-	0.3	0.3	-
	Strict	C10-3	-	-	-	-	-	-	-	0.9	-	-	-	0.5	0.5	-
Employ Wireless Devices Authentication Configuration	Implement Once	C11-1	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
Secure Configuration Controls for All Devices	Basic	C12-1	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
	Advanced	C12-2	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
	Complete	C12-3	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
Employ Port Scanning and Control Tools	Yearly	C13-1	-	-	-	-	-	-	-	-	0.5	0.5	0.5	-	-	-
	Monthly	C13-2	-	-	-	-	-	-	-	-	0.7	0.7	0.7	-	-	-
	Weekly	C13-3	-	-	-	-	-	-	-	-	0.9	0.9	0.9	-	-	-
	Daily/ On Demand	C13-4	-	-	-	-	-	-	-	-	0.95	0.95	0.95	-	-	-
Deploy Network Based IDS	Basic	C14-1	0.1	-	-	0.1	0.1	-	-	-	-	-	-	-	-	0.3
	Advanced	C14-2	0.3	-	-	0.3	0.3	-	-	-	-	-	-	-	-	0.5
	Complete	C14-3	0.5	-	-	0.5	0.5	-	-	-	-	-	-	-	-	0.7
Deploy Network Based Proxies	Implement Once	C15-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deployment of VLANs for Sensitive Operations	Implement Once	C16-1	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
Segmentation of Network Based on Trust Levels	Implement Once	C17-1	0.4	-	0.4	0.4	0.4	0.4	0.4	0.4	-	-	-	-	0.7	0.5
Network Data Encryption	Implement Once	C18-1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9
Application Whitelisting	Lax	C19-1	-	0.5	-	-	-	0.5	0.5	0.5	-	-	-	0.5	-	-
	Moderate	C19-2	-	0.7	-	-	-	0.7	0.7	0.7	-	-	-	0.7	-	-
	Strict	C19-3	-	0.9	-	-	-	0.9	0.9	0.9	-	-	-	0.9	-	-
	Business Needs	C19-4	-	0.95	-	-	-	0.95	0.95	0.95	-	-	-	0.95	-	-
User Access Controls	Basic	C20-1	0.3	-	-	0.3	0.3	-	-	-	0.5	0.5	0.5	-	0.3	0.2
	Advanced	C20-2	0.6	-	-	0.6	0.6	-	-	-	0.7	0.7	0.7	-	0.6	0.4
	Complete	C20-3	0.9	-	-	0.9	0.9	-	-	-	0.95	0.95	0.95	-	0.9	0.6
Website Whitelisting	Lax	C21-1	0.2	0.5	-	0.2	0.2	0.5	0.5	0.5	-	-	-	-	-	-
	Moderate	C21-2	0.3	0.7	-	0.3	0.3	0.7	0.7	0.7	-	-	-	-	-	-
	Strict	C21-3	0.5	0.9	-	0.5	0.5	0.9	0.9	0.9	-	-	-	-	-	-
	Business Needs	C21-4	0.6	0.95	-	0.6	0.6	0.95	0.95	0.95	-	-	-	-	-	-
Network Log Reporting	Implement Once	C22-1	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-
Account Management Controls	Lax	C23-1	-	-	-	-	-	-	-	-	-	-	-	0.2	-	0.3
	Moderate	C23-2	-	-	-	-	-	-	-	-	-	-	-	0.4	-	0.5
	Strict	C23-3	-	-	-	-	-	-	-	-	-	-	-	0.6	-	0.7
	Business Needs	C23-4	-	-	-	-	-	-	-	-	-	-	-	0.9	-	0.7
User Training and Education	Yearly	C24-1	0.2	0.2	-	0.2	0.2	0.2	0.2	0.2	-	-	-	0.2	0.2	-
	Monthly	C24-2	0.3	0.3	-	0.3	0.3	0.3	0.3	0.3	-	-	-	0.3	0.3	-
	Weekly	C24-3	0.4	0.4	-	0.4	0.4	0.4	0.4	0.4	-	-	-	0.4	0.4	-
	Daily/ On Demand	C24-4	0.5	0.5	-	0.5	0.5	0.5	0.5	0.5	-	-	-	0.5	0.5	-
Strong Secure Password Policy	Lax	C25-1	0.3	-	-	0.3	0.3	-	-	-	-	-	-	-	-	0.3
	Moderate	C25-2	0.6	-	-	0.6	0.6	-	-	-	-	-	-	-	-	0.5
	Strict	C25-3	0.9	-	-	0.9	0.9	-	-	-	-	-	-	-	-	0.7
Incident Handling and Response Policies	Implement Once	C26-1	0.2	0.2	-	0.2	0.2	0.2	0.2	0.2	-	-	-	-	-	-
Penetration Testing	Yearly	C27-1	0.1	0.1	-	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.4	-	0.3	-
	Monthly	C27-2	0.1	0.1	-	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.4	-	0.4	-

Control	Level	Control Code	Direct Cost	Morale	Indirect Cost			Total
					System Performance	Re-Training		
Automated Inventory Scanning and Management	Implement Once	C1-1	0.25	0	1	0	1	
	Yearly	C1-2	0.5	0	1	0	1	
	Monthly	C1-3	0.75	0	2	0	2	
	Weekly	C1-4	1	0	2	0	2	
	Daily/ On Demand	C1-5	1.5	0	3	0	3	
Automated Patching Tools	Implement Once	C2-1	0.25	0	1	0	1	
	Yearly	C2-2	0.5	0	1	0	1	
	Monthly	C2-3	0.75	0	2	0	2	
	Weekly	C2-4	1	0	3	0	3	
	Daily/ On Demand	C2-5	1.5	0	1	0	1	
Automated Vulnerability Scanning Tools	Yearly	C3-1	0.5	0	1	0	1	
	Monthly	C3-2	0.75	0	2	0	2	
	Weekly	C3-3	1	0	3	0	3	
	Daily/ On Demand	C3-4	1.5	0	1	0	1	
Anti-Malware Software	Yearly	C4-1	0.5	0	1	0	1	
	Monthly	C4-2	0.75	1	1	0	2	
	Weekly	C4-3	1	1	2	0	3	
	Daily/ On Demand	C4-4	1.5	2	3	0	5	
Deployment of Network Firewalls	Lax	C5-1	0.25	1	1	0	2	
	Moderate	C5-2	0.5	1	2	0	3	
	Strict	C5-3	1	2	2	0	4	
Host Based IPS	Lax	C6-1	0.75	0	1	0	1	
	Moderate	C6-2	1	0	2	0	2	
	Strict	C6-3	1.5	0	3	0	3	
Deploy Web Application Firewalls	Lax	C7-1	0.25	1	1	0	2	
	Moderate	C7-2	0.5	1	2	0	3	
	Strict	C7-3	1	2	2	0	4	
Deploy DLP Based Systems	Implement Once	C8-1	1	0	1	0	1	
Use of Secure Config for OS	Basic	C9-1	1	0	1	0	1	
	Advanced	C9-2	1.25	0	2	0	2	
	Complete	C9-3	1.5	0	3	0	3	
Execution Control on Removable Media	Lax	C10-1	0.25	1	1	1	3	
	Moderate	C10-2	0.5	2	2	1	5	
	Strict	C10-3	0.75	3	2	2	7	
Employ Wireless Devices Authentication Configuration	Implement Once	C11-1	1	1	2	0	3	
Secure Configuration Controls for All Devices	Basic	C12-1	1	2	2	1	5	
	Advanced	C12-2	1.25	3	2	1	6	
	Complete	C12-3	1.5	4	3	1	8	
Employ Port Scanning and Control Tools	Yearly	C13-1	0.25	0	1	0	1	
	Monthly	C13-2	0.5	0	2	0	2	
	Weekly	C13-3	1	0	2	0	2	
	Daily/ On Demand	C13-4	1.5	0	3	0	3	
Deploy Network Based IDS	Basic	C14-1	0.75	0	1	0	1	
	Advanced	C14-2	1	0	2	0	2	
	Complete	C14-3	1.25	0	3	0	3	
Deploy Network Based Proxies	Implement Once	C15-1	1	0	2	0	2	
Deployment of VLANs for Sensitive Operations	Implement Once	C16-1	1.25	0	2	0	2	
Segmentation of Network Based on Trust Levels	Implement Once	C17-1	2	0	2	0	2	
Network Data Encryption	Implement Once	C18-1	0.75	0	2	1	3	
Application Whitelisting	Lax	C19-1	0.5	1	1	1	3	
	Moderate	C19-2	1	2	2	1	5	
	Strict	C19-3	1.25	3	2	1	6	
	Business Needs	C19-4	1.5	3	2	2	7	
User Access Controls	Basic	C20-1	0.5	1	1	1	3	
	Advanced	C20-2	1	2	1	1	4	
	Complete	C20-3	2	3	1	2	6	
Website Whitelisting	Lax	C21-1	0.5	1	1	1	3	
	Moderate	C21-2	1	2	2	1	5	
	Strict	C21-3	1.25	3	2	1	6	
	Business Needs	C21-4	1.5	4	3	2	9	
Network Log Reporting	Implement Once	C22-1	0.75	0	1	0	1	
Account Management Controls	Lax	C23-1	0.75	1	1	1	3	
	Moderate	C23-2	1	2	1	1	4	
	Strict	C23-3	1.5	2	1	1	4	
	Business Needs	C23-4	1.75	3	1	2	6	
User Training and Education	Yearly	C24-1	0.75	1	0	1	2	
	Monthly	C24-2	1	2	0	2	4	
	Weekly	C24-3	2	3	0	3	6	
	Daily/ On Demand	C24-4	4	4	0	4	8	
Strong Secure Password Policy	Lax	C25-1	0.25	1	0	1	2	
	Moderate	C25-2	1	2	0	1	3	
	Strict	C25-3	1.5	3	0	2	5	
Incident Handling and Response Policies	Implement Once	C26-1	0.25	0	0	2	2	
Penetration Testing	Yearly	C27-1	2	0	0	1	1	
	Monthly	C27-2	4	0	1	1	2	