INTELLIGENCE BRIEFING
Security Command Center
TLP:CLEAR
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FortiAuthenticator API Improper Access Control Enables Unauthenticated Remote Code Execution (CVE-2026-44277)

CVE VULNERABILITY | **CRITICAL** | CVSS 9.5

SCC Item ID	SCC-CVE-2026-0158
Type	CVE Vulnerability
CVE ID	CVE-2026-44277
Severity	CRITICAL
CVSS Base Score	9.5
Affected Products	Fortinet FortiAuthenticator 8.0.0-8.0.2, 6.6.0-6.6.8, 6.5.0-6.5.6; FortiAuthenticator Cloud not affected
Published	2026-05-12T07:00:00+00:00
Discovery Source	Rss:T1 Psirt

Executive Summary

Fortinet has disclosed a critical unauthenticated remote code execution vulnerability in FortiAuthenticator, the authentication and network access control platform deployed across enterprise environments. An unauthenticated attacker who can reach the API can execute arbitrary commands without credentials, potentially collapsing multi-factor authentication enforcement across every downstream system tied to the affected instance. Fixed versions are available; organizations running FortiAuthenticator 6.5.x, 6.6.x, or 8.0.x should treat patching as an emergency priority.

Technical Analysis

CVE-2026-44277 is an improper access control vulnerability (CWE-284, CWE-285, CWE-306) in FortiAuthenticator's API layer. Unauthenticated remote attackers can send specially crafted API requests to execute arbitrary code or OS commands on the appliance. No authentication or user interaction is required. CVSS v3 base score is reported as 9.5 (verify against FortiGuard PSIRT advisory FG-IR-26-128 for authoritative final score; NVD publication pending as of this analysis). Affected versions: FortiAuthenticator 8.0.0-8.0.2, 6.6.0-6.6.8, 6.5.0-6.5.6. FortiAuthenticator Cloud is not affected. MITRE ATT&CK mappings: T1190 (Exploit Public-Facing Application), T1059 (Command and Scripting Interpreter), T1078 (Valid Accounts, post-exploitation), T1556 (Modify Authentication Process). Fixed releases are available per FortiGuard PSIRT. EPSS score is not yet available; KEV listing not confirmed as of this analysis. Confidence: medium, pending

NVD publication and CVSS score verification.

Action Checklist

1. Step 1: Containment. Immediately restrict network access to FortiAuthenticator API endpoints (TCP 443 and any exposed API ports) at the perimeter firewall or WAF. If internet-facing, take the management interface off public exposure now. Identify all instances running 6.5.0-6.5.6, 6.6.0-6.6.8, or 8.0.0-8.0.2 via your asset inventory. Isolate any instance that cannot be patched immediately by placing it behind an internal-only network segment. Reference: FortiGuard PSIRT FG-IR-26-128.
2. Step 2: Detection. Review FortiAuthenticator API access logs for anomalous unauthenticated requests, unexpected HTTP 2xx responses to API endpoints that should require authentication, and unusual process execution events originating from the FortiAuthenticator process context. Query your SIEM for API calls to FortiAuthenticator management interfaces from external or unexpected source IPs. Look for T1059-pattern command execution sequences and T1556 indicators such as unexpected changes to authentication configuration objects. No public IOCs are confirmed as of this analysis.
3. Step 3: Eradication. Apply the fixed FortiAuthenticator release per FortiGuard PSIRT advisory FG-IR-26-128 (confirm patched version numbers directly from the advisory before upgrading). Upgrade paths: from 6.5.x, upgrade to the fixed 6.5 release; from 6.6.x, upgrade to the fixed 6.6 release; from 8.0.x, upgrade to 8.0.3 or later. After patching, rotate all API credentials, service account tokens, and administrative credentials associated with the affected instance, as pre-patch compromise cannot be ruled out.
4. Step 4: Recovery. After patching, verify the FortiAuthenticator version string in the admin console matches the fixed release. Run a configuration integrity check: confirm authentication policies, RADIUS/LDAP integrations, and MFA enforcement rules are unchanged. Monitor authentication event logs for the 72 hours post-patch for anomalous authentication successes, account creations, or policy changes that could indicate residual attacker presence. Re-enable any API endpoints or network segments that were restricted during containment only after patch verification.
5. Step 5: Post-Incident. This vulnerability exposes a control gap: unauthenticated access to a privileged API in a Tier-1 authentication infrastructure component. Post-remediation, implement API authentication enforcement reviews as a standing audit item for all identity and access management (IAM) platform components. Map this gap to NIST SP 800-53 AC-3 (Access Enforcement) and IA-3 (Device Identification and Authentication). Review network segmentation controls to ensure FortiAuthenticator management interfaces are never reachable from untrusted networks. Add FortiAuthenticator to your critical asset patch SLA with a sub-72-hour window for critical CVEs.

IR / Forensic Enrichment

Triage Priority	IMMEDIATE
Escalation Criteria	Escalate to CISO and legal counsel immediately if FortiAuthenticator API logs show any HTTP 2xx response to an unauthenticated '/api/v1/' request originating from an external IP, any post-exploitation indicators (unexpected process execution, new admin accounts, MFA policy changes), or if any downstream system authenticated via the affected FortiAuthenticator instance handles PII, PHI, or payment data — triggering breach notification assessment under applicable regulatory frameworks (HIPAA, GDPR, PCI-DSS).

Recovery Notes	Following patch verification to the FG-IR-26-128 fixed release, conduct a full audit of all RADIUS clients, LDAP server configurations, and MFA enforcement rules against a known-good pre-incident baseline before restoring network connectivity to the FortiAuthenticator management interface. Maintain elevated authentication event log monitoring for a minimum of 72 hours post-recovery, specifically watching for successful authentications by newly created accounts or MFA bypass events on integrated VPN, cloud SSO, and privileged access systems. Do not restore internet-facing exposure of the FortiAuthenticator management interface under any circumstances — access must remain restricted to defined management source IPs via firewall ACL as a permanent architectural control.
Forensic Artifacts	FortiAuthenticator API access logs ('/var/log/fortiauthenticator/access.log' or syslog target): specifically HTTP 2xx responses to '/api/v1/' URI paths with no Authorization header present — the direct artifact of unauthenticated API exploitation via CVE-2026-44277. | FortiAuthenticator admin event logs ('Log > Admin Events' in GUI): entries reflecting creation of new administrative accounts, modification of RADIUS client definitions, changes to MFA enforcement policies, or disabling of authentication requirements on any integrated system — post-exploitation configuration tampering indicative of T1556 (Modify Authentication Process). | Linux OS process execution logs ('/var/log/syslog', '/var/log/auth.log' on the appliance): entries showing bash, sh, python, or other interpreter processes spawned as child processes of the web service (httpd/nginx) — the OS-level footprint of remote code execution delivered through the vulnerable FortiAuthenticator API endpoint. | Network flow records or perimeter firewall logs: inbound TCP 443 sessions to FortiAuthenticator from IPs outside approved management CIDRs, particularly sessions with no corresponding successful authentication event in FortiAuthenticator logs — indicating unauthenticated API access attempts or successful exploitation without credential use. | FortiAuthenticator configuration exports (pre-incident baseline vs. post-patch current): binary or text diff of RADIUS client tables, LDAP server entries, user and group objects, and MFA policy definitions — used to identify attacker-introduced persistence objects or policy weakening that survived the patch cycle.

Per-Action IR Details

Step 1: Containment — Immediately restrict network access to FortiAuthenticator API endpoints (TCP 443 and any exposed API ports) at the perimeter firewall or WAF. If internet-facing, take the management interface off public exposure now. Identify all instances running 6.5.0–6.5.6, 6.6.0–6.6.8, or 8.0.0–8.0.2 via your asset inventory. Isolate any instance that cannot be patched immediately by placing it behind an internal-only network segment. Reference: FortiGuard PSIRT FG-IR-26-128.

NIST Phase: Containment

Reference: NIST 800-61r3 §3.3 — Containment Strategy

Controls: NIST IR-4 (Incident Handling), NIST SC-7 (Boundary Protection), NIST AC-3 (Access Enforcement), CIS 4.4 (Implement and Manage a Firewall on Servers), CIS 1.1 (Establish and Maintain Detailed Enterprise Asset Inventory), CIS 12.2 (Establish and Maintain a Secure Network Architecture) — IG2/IG3

Compensating: For teams without a WAF: immediately apply host-based firewall rules on the FortiAuthenticator appliance itself via FortiOS CLI to ACL-restrict TCP 443 to known management source IPs only ('config system interface / set allowaccess' restricted list). Use 'show full-configuration' to enumerate all exposed interfaces. Enumerate all affected-version instances by running: 'grep -r FortiAuthenticator /etc/hosts && nmap -p 443 --open ' to locate live instances. Document each instance version by logging into admin console and capturing 'get system status' output before any patching action.

Evidence: Before restricting access, capture a full snapshot of FortiAuthenticator's current API access log at '/var/log/fortiauthenticator/' (or equivalent syslog forwarding target) to preserve pre-containment traffic. Capture a netstat dump from the appliance ('diagnose sys process list') to identify any active or residual TCP sessions on port

443 from external IPs. Take a configuration export ('backup full-config') to establish a baseline for later integrity comparison post-patch. Record all active admin sessions from 'Monitor > Admin Login Events' in the GUI before isolation.

Step 2: Detection — Review FortiAuthenticator API access logs for anomalous unauthenticated requests, unexpected HTTP 2xx responses to API endpoints that should require authentication, and unusual process execution events originating from the FortiAuthenticator process context. Query your SIEM for API calls to FortiAuthenticator management interfaces from external or unexpected source IPs. Look for T1059-pattern command execution sequences and T1556 indicators such as unexpected changes to authentication configuration objects. No public IOCs are confirmed as of this analysis.

NIST Phase: Detection Analysis

Reference: NIST 800-61r3 §3.2 — Detection and Analysis

Controls: NIST IR-5 (Incident Monitoring), NIST AU-6 (Audit Record Review, Analysis, and Reporting), NIST AU-12 (Audit Record Generation), NIST SI-4 (System Monitoring), CIS 8.2 (Collect Audit Logs), MITRE ATT&CK T1059 (Command and Scripting Interpreter), MITRE ATT&CK T1556 (Modify Authentication Process), MITRE ATT&CK T1190 (Exploit Public-Facing Application)

Compensating: Without a SIEM: parse FortiAuthenticator's API access log directly using: 'awk \'$9 ~/^2[0-9][0-9]$/ && $7 ~/^\/api\/v1\// {print $1, $2, $3, $7, $9}\'' /var/log/fortiauthenticator/access.log' to surface HTTP 2xx responses to API endpoints. Filter for requests with no Authorization header present using: 'grep -E "GET|POST|PUT|DELETE" /var/log/fortiauthenticator/access.log | grep -v "Authorization"'. Write a Sigma rule targeting your log aggregator (or apply manually via grep) matching: source_ip NOT IN known_admin_CIDRs AND uri_path CONTAINS '/api/v1/' AND http_status IN (200, 201, 204). For process execution anomalies on Linux-backed appliances, review '/var/log/auth.log' and '/var/log/syslog' for unexpected shell invocations (bash, sh, python) spawned from the FortiAuthenticator web service process (e.g., httpd or nginx).

Evidence: Collect and preserve: (1) FortiAuthenticator API access logs covering the 30-day window prior to detection — specifically HTTP requests to '/api/v1/' endpoints that returned 2xx without a valid session token or Authorization header, as this is the direct artifact of unauthenticated API access exploitation. (2) FortiAuthenticator admin event logs ('Log > Admin Events') for any configuration changes to RADIUS clients, LDAP server bindings, MFA policies, or user accounts occurring outside of approved change windows. (3) Linux OS-level process execution logs ('/var/log/syslog', '/var/log/auth.log') for shells or interpreters spawned as child processes of the web application service — this is the post-exploitation footprint of RCE via CVE-2026-44277. (4) Network flow records (NetFlow/IPFIX) or firewall logs showing inbound sessions to FortiAuthenticator TCP 443 from IPs outside of defined management CIDRs, particularly those with short session durations and no prior authentication event.

Step 3: Eradication — Apply the fixed FortiAuthenticator release per FortiGuard PSIRT advisory FG-IR-26-128. Upgrade paths: from 6.5.x, upgrade to the fixed 6.5 release; from 6.6.x, upgrade to the fixed 6.6 release; from 8.0.x, upgrade to 8.0.3 or later. Confirm the specific target version in the advisory before upgrading. After patching, rotate all API credentials, service account tokens, and administrative credentials associated with the affected instance, as pre-patch compromise cannot be ruled out.

NIST Phase: Eradication

Reference: NIST 800-61r3 §3.4 — Eradication

Controls: NIST SI-2 (Flaw Remediation), NIST IA-5 (Authenticator Management), NIST CM-3 (Configuration Change Control), NIST IR-4 (Incident Handling), CIS 7.3 (Perform Automated Operating System Patch Management), CIS 7.4 (Perform Automated Application Patch Management), CIS 5.2 (Use Unique Passwords)

Compensating: For teams managing the upgrade manually without an automated patch management platform: download the target firmware image from Fortinet Support (support.fortinet.com) to a local file server, verify the SHA-256 checksum published in FG-IR-26-128 before upload using 'sha256sum ', then push via FortiAuthenticator's web GUI under 'System > Firmware'. Do NOT upgrade directly from an internet-exposed interface — transfer the image via internal management VLAN only. For credential rotation without a PAM tool: enumerate all API tokens via 'System > API Access' in the admin console, revoke all existing tokens, and regenerate with new secrets; reset all local admin passwords via 'System > Administrators'; notify all integrated systems (RADIUS clients, LDAP proxies, VPN

gateways) of the credential change with a documented maintenance window.

Evidence: Before patching, capture a second configuration export and diff it against the pre-containment baseline export to identify any configuration objects modified during the exposure window — specifically: RADIUS client definitions, LDAP server bindings, user account additions or privilege escalations, and MFA policy modifications. Preserve the pre-patch firmware version string ('get system status' output) as a dated artifact for your incident record. If RCE is suspected, collect a full memory dump or disk image of the appliance OS partition before firmware replacement, as the patch process may overwrite forensic evidence of attacker-planted files or persistence mechanisms (e.g., cron jobs, modified scripts under '/etc/fortiauthenticator/' or '/var/lib/').

Step 4: Recovery — After patching, verify the FortiAuthenticator version string in the admin console matches the fixed release. Run a configuration integrity check: confirm authentication policies, RADIUS/LDAP integrations, and MFA enforcement rules are unchanged. Monitor authentication event logs for the 72 hours post-patch for anomalous authentication successes, account creations, or policy changes that could indicate residual attacker presence. Re-enable any API endpoints or network segments that were restricted during containment only after patch verification.

NIST Phase: Recovery

Reference: NIST 800-61r3 §3.5 — Recovery

Controls: NIST IR-4 (Incident Handling), NIST SI-7 (Software, Firmware, and Information Integrity), NIST AU-6 (Audit Record Review, Analysis, and Reporting), NIST CM-3 (Configuration Change Control), NIST IA-3 (Device Identification and Authentication), CIS 7.1 (Establish and Maintain a Vulnerability Management Process), CIS 4.2 (Establish and Maintain a Secure Configuration Process for Network Infrastructure)

Compensating: Without enterprise monitoring tooling: use FortiAuthenticator's built-in 'Log > Authentication Events' view filtered for: (a) successful authentications by accounts not seen in the 30-day pre-incident baseline, (b) any account with admin privilege not in the approved admin roster, and (c) MFA bypass or exemption events. Export these logs to CSV and diff against your pre-incident configuration export daily for the 72-hour watch window. For configuration integrity verification, use 'diff' against the two saved configuration exports (pre-incident baseline vs. post-patch current) focusing on RADIUS client tables, LDAP server entries, and user/group objects. Verify the firmware version with: 'get system status | grep Version' and compare against the FG-IR-26-128 fixed release string before restoring any network access.

Evidence: After patching, collect and retain: (1) The post-patch 'get system status' output confirming the fixed version string as a dated artifact. (2) A full configuration export immediately post-patch for the incident record. (3) FortiAuthenticator authentication event logs for the 72-hour monitoring window, specifically flagging any RADIUS authentication successes for accounts not present in the pre-incident user database — this would indicate attacker-created accounts persisting post-patch. (4) Any MFA policy change audit entries logged during the monitoring window, as an attacker with residual access may attempt to disable MFA enforcement on high-value integrated systems (VPN gateways, cloud SSO).

Step 5: Post-Incident — This vulnerability exposes a control gap: unauthenticated access to a privileged API in a Tier-1 authentication infrastructure component. Post-remediation, implement API authentication enforcement reviews as a standing audit item for all identity and access management (IAM) platform components. Map this gap to NIST SP 800-53 AC-3 (Access Enforcement) and IA-3 (Device Identification and Authentication). Review network segmentation controls to ensure FortiAuthenticator management interfaces are never reachable from untrusted networks. Add FortiAuthenticator to your critical asset patch SLA with a sub-72-hour window for critical CVEs.

NIST Phase: Post Incident

Reference: NIST 800-61r3 §4 — Post-Incident Activity

Controls: NIST IR-4 (Incident Handling), NIST IR-8 (Incident Response Plan), NIST AC-3 (Access Enforcement), NIST IA-3 (Device Identification and Authentication), NIST RA-3 (Risk Assessment), NIST SI-2 (Flaw Remediation), NIST SC-7 (Boundary Protection), CIS 7.1 (Establish and Maintain a Vulnerability Management Process), CIS 7.2 (Establish and Maintain a Remediation Process), CIS 6.3 (Require MFA for Externally-Exposed Applications), CIS 4.4

(Implement and Manage a Firewall on Servers)

Compensating: For teams without a formal GRC platform: create a standing checklist item in your patch review process specifically for FortiAuthenticator and all other IAM-tier appliances (Fortinet, Duo, Okta, RSA) requiring review within 24 hours of any CVSS ≥ 9.0 advisory. Document the control gap (unauthenticated API reachable from untrusted network) as a formal risk finding using a simple risk register spreadsheet mapped to NIST AC-3 and IA-3. Conduct a 60-minute lessons-learned session with the IR team and produce a one-page after-action report covering: detection timeline gap analysis, time-to-containment measurement, and specific firewall rule changes made to enforce FortiAuthenticator management interface isolation. Schedule a recurring quarterly review to verify the management interface ACL has not been inadvertently relaxed.

Evidence: For the lessons-learned record, compile: (1) The full detection timeline from earliest suspicious API log entry to incident declaration, quantifying the detection gap against the 800-61r3 §3.2 guidance. (2) A network diagram excerpt confirming the post-incident segmentation state of FortiAuthenticator management interfaces (before and after). (3) The diff of authentication policy objects and user accounts between pre-incident baseline and post-patch verified state, as evidence of whether attacker-caused configuration drift existed. (4) Documentation of all downstream systems integrated with the affected FortiAuthenticator instance (RADIUS clients, VPN gateways, cloud SSO, LDAP-dependent applications) as a blast-radius record for regulatory or leadership reporting.

Detection Guidance

Query SIEM and FortiAuthenticator logs for: (1) API requests to FortiAuthenticator management endpoints that return HTTP 200 or 201 without a preceding authenticated session token, these should not occur under normal operation; (2) source IPs outside expected admin CIDR ranges making API calls to the appliance; (3) unexpected process spawning or OS-level command execution events from the FortiAuthenticator service process, if host-based logging is available; (4) configuration changes to authentication policies, user accounts, or RADIUS/LDAP integration settings occurring outside change windows. MITRE T1190 detection: correlate inbound API request volume spikes with absence of authentication headers. MITRE T1556 detection: alert on any modification to MFA enforcement rules or authenticator objects. No confirmed public IOCs (hashes, IPs, domains) are available as of this analysis. FortiGuard PSIRT FG-IR-26-128 should be monitored for updated IOC releases.

Framework Mappings

MITRE-ATTACK

- **T1059** — Command and Scripting Interpreter
- **T1078** — Valid Accounts
- **T1556** — Modify Authentication Process
- **T1190** — Exploit Public-Facing Application

NIST-800-53R5

- **CM-7** — Least Functionality
- **SI-3** — Malicious Code Protection
- **SI-4** — System Monitoring
- **SI-7** — Software, Firmware, and Information Integrity
- **AC-2** — Account Management
- **AC-6** — Least Privilege

- **IA-2** — Identification and Authentication (Organizational Users)
- **IA-5** — Authenticator Management
- **CA-8** — Penetration Testing
- **RA-5** — Vulnerability Monitoring and Scanning
- **SC-7** — Boundary Protection
- **SI-2** — Flaw Remediation
- **AC-3** — Access Enforcement

OWASP-TOP10-2021

- **A01:2021** — Broken Access Control
- **A07:2021** — Identification and Authentication Failures

CIS-V8

- **6.1** — Establish an Access Granting Process
- **6.2** — Establish an Access Revoking Process
- **6.3** — Require MFA for Externally-Exposed Applications

SOC2-TSC

- **CC6.1** — The entity implements logical access security software, infrastructure, and architectures over protected information assets

HIPAA-SECURITY

- **164.312(a)(1)** — Access Control

ISO-27001-2022

- **A.8.8** — Management of technical vulnerabilities

MITRE ATT&CK Mapping

Technique ID	Technique Name	Tactic
T1059	Command and Scripting Interpreter	Execution
T1078	Valid Accounts	Defense-Evasion
T1556	Modify Authentication Process	Credential-Access
T1190	Exploit Public-Facing Application	Initial-Access

Sources

Source	URL	Tier
FortiGuard Labs | FortiGuard Center - IR Advisories	https://fortiguard.fortinet.com/psirt/FG-IR-26-128	T3
	https://www.wiz.io/academy/api-security/api-security-best-practices	T3
	https://www.securityweek.com/google-api-keys-in-android-apps-expose...	T3
	https://cisoseries.com/cybersecurity-news-android-api-exposure-acro...	T3
CVE-2026-30227: Jstedfast MimeKit CRLF Injection ...	https://www.sentinelone.com/vulnerability-database/cve-2026-30227/	T3
NVD	https://nvd.nist.gov/vuln/detail/CVE-2026-44277	T1

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