INTELLIGENCE BRIEFING
Security Command Center
TLP:CLEAR
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BlueHammer Zero-Day Local Privilege Escalation Targeting Windows Defender Surfaces Publicly

CVE VULNERABILITY | HIGH | CVSS 7.8

SCC Item ID	SCC-CVE-2026-0030
Type	CVE Vulnerability
Severity	HIGH
CVSS Base Score	7.8
Affected Products	Windows Defender (specific version unconfirmed; no CVE assigned as of discovery)
Published	2026-04-10
Discovery Source	Gemini

Executive Summary

A zero-day local privilege escalation vulnerability, publicly named 'BlueHammer,' has been reported in Windows Defender, with no patch issued and no CVE assigned as of discovery. An attacker who already has local access to an affected Windows system could exploit this flaw to gain elevated privileges, potentially enabling full system compromise. Confidence in technical details is LOW; the disclosure originates from a single source and has not been confirmed by Microsoft, CISA, NVD, or any authoritative vendor advisory. Treat as an unverified emerging threat requiring monitoring, not immediate emergency response.

Technical Analysis

Reported vulnerability class: Local Privilege Escalation (LPE) in Windows Defender. CWE-269 (Improper Privilege Management) is the mapped weakness. MITRE ATT&CK technique: T1068 (Exploitation for Privilege Escalation). No CVE has been assigned. No CVSS vector string is available from a vendor source; the 7.8 base score referenced in discovery data is analyst-assigned, not Microsoft-confirmed. EPSS score is 0.0, reflecting no NVD-tracked exploitation data. Attack vector requires existing local access; remote exploitation is not indicated by available reporting. Affected Windows Defender versions are unspecified in the disclosure. The vulnerability name 'BlueHammer' is researcher- or reporter-assigned with no official standing. MSRC has issued no advisory. CISA KEV and VulnCheck KEV do not list this item. Source quality score is 0.624 with no T1 source directly corroborating the vulnerability. The sources currently listed as T1 are general Microsoft Defender product pages rather than vendor advisories and do not address this specific finding. Technical exploitation details (trigger conditions, affected binary, privilege transition path) are not available from verified sources at time of analysis.

Action Checklist

1. Step 1: Containment, Do not treat this as a confirmed vulnerability requiring emergency patching. Apply least-privilege principles on Windows endpoints: review and restrict local user accounts that could be used as the required foothold. Ensure Windows Defender is running at current release version per Microsoft Update Catalog. Limit local logon rights on sensitive systems via Group Policy (Computer Configuration > Windows Settings > Security Settings > Local Policies > User Rights Assignment).
2. Step 2: Detection, Monitor for T1068 exploitation indicators: Windows Event ID 4688 (process creation with elevated token), Event ID 4672 (special privileges assigned to new logon), and Sysmon Event ID 1 (process creation) for unexpected parent-child process relationships involving MsMpEng.exe or other Windows Defender service processes. No confirmed IOC hashes, IPs, or domains are available for this disclosure. Alert on unexpected privilege transitions originating from Defender service processes.
3. Step 3: Eradication, No patch exists as of discovery timestamp. Mitigation path: apply Windows Defender definition and platform updates via Windows Update or WSUS to ensure the latest available build is deployed. Monitor MSRC (msrc.microsoft.com) for an official advisory or CVE assignment. Do not apply unofficial patches or workarounds from unverified sources.
4. Step 4: Recovery, If suspicious privilege escalation activity is detected on endpoints running Windows Defender, isolate the affected host, capture memory and relevant event logs before remediation, and verify endpoint integrity. Post-investigation, confirm Windows Defender platform version matches latest Microsoft release and re-validate that local privilege boundaries are enforced. Monitor MSRC and CISA KEV for status changes on this item.
5. Step 5: Post-Incident, Given the LOW confidence level of this disclosure, document this as an unverified threat tracked for confirmation and escalate only when MSRC, CISA, or NVD confirms the vulnerability with technical details. Review EDR coverage for T1068 across the Windows fleet. Assess whether privileged access workstations (PAWs) and tiered administration models are in place to limit blast radius if local access is achieved. Establish a process for escalating single-source zero-day disclosures to verified status before triggering full incident response.

IR / Forensic Enrichment

Triage Priority	DEFERRED
Escalation Criteria	Escalate immediately to urgent if MSRC publishes an official advisory or CVE is assigned to BlueHammer, if CISA adds any related indicator to the KEV catalog, if internal detection identifies Event ID 4688 or Sysmon Event ID 1 showing a child process spawned by MsMpEng.exe under a non-SYSTEM account context, or if a second independent technical source corroborates the BlueHammer disclosure with reproducible proof-of-concept details.

Recovery Notes	Post-containment, verify that all Windows endpoints have Windows Defender AMProductVersion updated to the current platform version per the Microsoft Defender Antivirus platform update baseline (https://learn.microsoft.com/en-us/microsoft-365/security/defender-endpoint/manage-updates-baselines-microsoft-defender-antivirus) and re-run local admin group audits to confirm least-privilege posture is restored. Monitor Windows Security Event IDs 4688 and 4672 for any recurrence of anomalous privilege transitions from Defender service processes for a minimum of 30 days post-triage or until an official MSRC advisory confirms the vulnerability is patched. If no CVE is assigned and no corroborating technical disclosure emerges within 30 days, document the threat as unconfirmed and close the tracking ticket with a note to reopen upon new evidence.
Forensic Artifacts	MsMpEng.exe child process artifacts — Sysmon Event ID 1 and Windows Security Event ID 4688 entries where ParentProcessName is MsMpEng.exe or another Windows Defender service process (NisSrv.exe, MpCmdRun.exe), indicating a successful LPE exploit that caused Defender to spawn an attacker-controlled process | Windows Defender operational logs at C:\ProgramData\Microsoft\Windows Defender\Support\MPLog-.log and MpCmdRun.log — these service-level logs may record anomalous internal Defender behavior, unexpected scan triggers, or error conditions consistent with exploitation of a vulnerability in the Defender surface | Volatile memory image analyzed with Volatility3 windows.privileges plugin — a successful token-based LPE via Defender would leave elevated token artifacts, injected threads, or anomalous privilege sets on MsMpEng.exe process objects visible in memory before remediation | Windows Security Event ID 4672 (Special Privileges Assigned to New Logon) and Event ID 4673 (Privileged Service Called) filtered for non-SYSTEM, non-LOCAL SERVICE accounts with SeDebugPrivilege, SeTcbPrivilege, or SeImpersonatePrivilege — the privilege classes most consistent with a local privilege escalation via a security service process | Prefetch files (C:\Windows\Prefetch\MPCMDRUN.EXE-*.pf and any unknown executable prefetch entries) with timestamps correlating to the suspected exploitation window — a post-exploitation binary executed under elevated privileges obtained via BlueHammer would generate a prefetch entry traceable to the LPE event timeline

Per-Action IR Details

Step 1: Containment — Do not treat this as a confirmed vulnerability requiring emergency patching. Apply least-privilege principles on Windows endpoints: review and restrict local user accounts that could be used as the required foothold. Ensure Windows Defender is running at current release version per Microsoft Update Catalog. Limit local logon rights on sensitive systems via Group Policy (Computer Configuration > Windows Settings > Security Settings > Local Policies > User Rights Assignment).

NIST Phase: Containment

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

Controls: NIST IR-4 (Incident Handling), NIST AC-6 (Least Privilege), NIST CM-6 (Configuration Settings), CIS 4.6 (Securely Manage Enterprise Assets and Software), CIS 5.4 (Restrict Administrator Privileges to Dedicated Administrator Accounts)

Compensating: Run the following PowerShell on each endpoint to audit local group membership and flag non-standard local admins: `Get-LocalGroupMember -Group 'Administrators' | Select Name,PrincipalSource | Export-Csv C:\IR\local_admins.csv`. For GPO enforcement without enterprise tooling, use Local Security Policy (secpol.msc) to restrict 'Allow log on locally' to named admin accounts only. Cross-reference Windows Defender platform version against Microsoft Update Catalog entry for KB2267602 using `Get-MpComputerStatus | Select-Object AMProductVersion,AMEngineVersion,AMServiceVersion`.

Evidence: Before modifying any Group Policy or account configurations, capture: (1) output of `Get-LocalGroupMember -Group 'Administrators'` to baseline current local admin membership; (2)

`Get-MpComputerStatus` output capturing current Windows Defender platform version (AMProductVersion), engine version, and service state — this establishes whether MsMpEng.exe was running at a version potentially affected by BlueHammer at time of triage; (3) Windows Security Event Log entries for Event ID 4720 (account created) and 4732 (member added to local group) from the 72 hours prior to discovery to identify any accounts added in anticipation of exploitation.

Step 2: Detection — Monitor for T1068 exploitation indicators: Windows Event ID 4688 (process creation with elevated token), Event ID 4672 (special privileges assigned to new logon), and Sysmon Event ID 1 (process creation) for unexpected parent-child process relationships involving MsMpEng.exe or other Windows Defender service processes. No confirmed IOC hashes, IPs, or domains are available for this disclosure. Alert on unexpected privilege transitions originating from Defender service processes.

NIST Phase: Detection Analysis

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

Controls: NIST SI-4 (System Monitoring), NIST AU-2 (Event Logging), NIST AU-6 (Audit Record Review, Analysis, and Reporting), NIST IR-5 (Incident Monitoring), CIS 8.2 (Collect Audit Logs)

Compensating: Deploy Sysmon with a configuration that specifically captures process creation (Event ID 1) and process access (Event ID 10) for MsMpEng.exe, MpCmdRun.exe, and NisSrv.exe. Use the SwiftOnSecurity Sysmon config as a baseline, then add a custom rule: `MsMpEng`. Query collected Sysmon logs via PowerShell: `Get-WinEvent -LogName 'Microsoft-Windows-Sysmon/Operational' | Where-Object {$_.Message -match 'MsMpEng'} | Select-Object TimeCreated,Message | Export-Csv C:\IR\defender_proc_events.csv`. For Event ID 4672 without SIEM, schedule a recurring task: `Get-WinEvent -FilterHashtable @{LogName='Security';Id=4672} | Where-Object {$_.Message -notmatch 'SYSTEM|LOCAL SERVICE|NETWORK SERVICE'} | Export-Csv C:\IR\special_priv_logons.csv`.

Evidence: Before tuning detection rules, preserve a point-in-time snapshot of: (1) Windows Security Event Log filtered for Event ID 4688 where 'Creator Process Name' contains MsMpEng.exe, MpCmdRun.exe, or msmpeng — this directly evidences any child process spawned by Defender service processes, which is the expected exploitation artifact for a Defender LPE; (2) Sysmon Event ID 10 (ProcessAccess) logs targeting processes where the source image is a Defender component, indicating handle duplication or token manipulation attempts consistent with LPE exploitation; (3) Windows Security Event ID 4673 (privileged service called) filtered on Defender service SID to detect SeDebugPrivilege or SeTcbPrivilege abuse — the privilege classes most likely leveraged by a Defender-surface LPE; (4) Registry key `HKLM\SYSTEM\CurrentControlSet\Services\WinDefend` to baseline current service configuration and detect tampering.

Step 3: Eradication — No patch exists as of discovery timestamp. Mitigation path: apply Windows Defender definition and platform updates via Windows Update or WSUS to ensure the latest available build is deployed. Monitor MSRC (https://msrc.microsoft.com/update-guide) for an official advisory or CVE assignment. Do not apply unofficial patches or workarounds from unverified sources.

NIST Phase: Eradication

Reference: NIST 800-61r3 §3.4 — Eradication

Controls: NIST SI-2 (Flaw Remediation), NIST SI-5 (Security Alerts, Advisories, and Directives), NIST CM-6 (Configuration Settings), CIS 7.1 (Establish and Maintain a Vulnerability Management Process), CIS 7.2 (Establish and Maintain a Remediation Process), CIS 7.3 (Perform Automated Operating System Patch Management)

Compensating: Until an official MSRC advisory or CVE is published, enforce Windows Defender platform updates via WSUS targeting the 'Definition Updates for Windows Defender' and 'Windows Defender' categories. Verify deployment success with: `Get-MpComputerStatus | Select-Object AMProductVersion` against the current platform version listed at https://learn.microsoft.com/en-us/microsoft-365/security/defender-endpoint/manage-updates-baselines-microsoft-defender-antivirus. Set a daily calendar reminder to check the MSRC Update Guide filtered on 'Windows Defender' product. Do NOT apply any community-sourced registry hacks or binary patches promoted on social media or single-source security blogs as remediating BlueHammer — these are unverified and may themselves be malicious.

Evidence: Before applying any updates, capture: (1) `Get-MpComputerStatus` full output saved to file — establishes the pre-patch AMProductVersion, AMEngineVersion, AntivirusSignatureVersion, and AntispywareSignatureVersion as

a forensic baseline; (2) a copy of the Windows Defender service binary at `C:\ProgramData\Microsoft\Windows Defender\Platform\\MsMpEng.exe` with SHA-256 hash (`Get-FileHash`) recorded — if BlueHammer exploitation has occurred, a tampered or replaced binary would be detectable via hash comparison post-update; (3) Windows Event Log System channel entries for Event ID 7036 (service state changes) and 7045 (new service installed) filtered on 'Windows Defender' to detect any persistence mechanism installed by a successful LPE exploit prior to eradication.

Step 4: Recovery — If suspicious privilege escalation activity is detected on endpoints running Windows Defender, isolate the affected host, capture memory and relevant event logs before remediation, and verify endpoint integrity. Post-investigation, confirm Windows Defender platform version matches latest Microsoft release and re-validate that local privilege boundaries are enforced. Monitor MSRC and CISA KEV for status changes on this item.

NIST Phase: Recovery

Reference: NIST 800-61r3 §3.5 — Recovery

Controls: NIST IR-4 (Incident Handling), NIST IR-5 (Incident Monitoring), NIST CP-10 (System Recovery and Reconstitution), NIST SI-7 (Software, Firmware, and Information Integrity), CIS 1.1 (Establish and Maintain Detailed Enterprise Asset Inventory), CIS 7.4 (Perform Automated Application Patch Management)

Compensating: For memory capture on an isolated host without commercial tooling, use WinPmem (open source, AVML-compatible) to acquire a raw memory image before any remediation: `winpmem_mini_x64.exe memdump.aff4`. Capture event logs with: `wevtutil epl Security C:\IR\Security.evtx` and `wevtutil epl System C:\IR\System.evtx` and `wevtutil epl 'Microsoft-Windows-Sysmon/Operational' C:\IR\Sysmon.evtx`. Verify Defender platform integrity post-recovery by comparing `Get-FileHash 'C:\ProgramData\Microsoft\Windows Defender\Platform\\MsMpEng.exe' -Algorithm SHA256` against the Microsoft-published hash for that platform version. Subscribe to MSRC security notifications at https://msrc.microsoft.com/engage/notifyMe for Windows Defender product to receive CVE assignment alerts without manual polling.

Evidence: Before reimaging or remediating any isolated host, capture: (1) full volatile memory image — a successful BlueHammer LPE via MsMpEng.exe would leave injected shellcode, token duplication artifacts, or elevated thread contexts visible in a memory dump analyzed with Volatility3 using the `windows.privileges` and `windows.malfind` plugins; (2) Windows Security Event Log Event ID 4624 (logon) filtered for Logon Type 2 or 3 with elevated token and unexpected account names, timestamped around the privilege escalation window; (3) `C:\ProgramData\Microsoft\Windows Defender\Support\MpCmdRun.log` and `MPLog-*.log` files — Defender's own operational logs which may record anomalous internal service behavior or unexpected scan operations triggered during exploitation; (4) prefetch files from `C:\Windows\Prefetch\` for MPCMDRUN.EXE, MSMPENG.EXE, and any unknown executables with timestamps correlating to the suspected exploitation window.

Step 5: Post-Incident — This item exposes a detection gap for LPE activity on endpoints running Microsoft security tooling. Review EDR coverage for T1068 across the Windows fleet. Assess whether privileged access workstations (PAWs) and tiered administration models are in place to limit blast radius if local access is achieved. Document this as an unverified threat tracked for confirmation — establish a process for escalating single-source zero-day disclosures to verified status before triggering full incident response.

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 RA-3 (Risk Assessment), NIST SI-4 (System Monitoring), CIS 5.4 (Restrict Administrator Privileges to Dedicated Administrator Accounts), CIS 7.1 (Establish and Maintain a Vulnerability Management Process)

Compensating: Without an EDR platform, establish a repeatable T1068 detection baseline for MsMpEng.exe using a scheduled PowerShell task that runs hourly and exports Event ID 4688 and 4672 logs filtered on Defender process names to a monitored share. Write a Sigma rule targeting Sysmon Event ID 1 for child processes of MsMpEng.exe (parent_image contains 'MsMpEng') and deploy it as a PowerShell-based log parser using `Import-Module Sigma` or manually pattern-match with `Select-String`. For PAW assessment, run `Get-LocalGroupMember -Group 'Administrators' -CimSession ` across the fleet using a CSV of hostnames to identify endpoints where standard user accounts hold local admin rights — direct blast-radius exposure if BlueHammer LPE is confirmed. Document the

BlueHammer disclosure in a threat tracking register with fields: source, confidence level (LOW), CVE status (unassigned), MSRC acknowledgment (none), and review cadence (weekly until resolved or retracted).

Evidence: For lessons-learned documentation, preserve: (1) a timestamped export of all Event ID 4688 and 4672 log entries from the detection window across all endpoints that ran the Windows Defender version in question — this establishes the scope of potential exposure even if no confirmed exploitation occurred; (2) the output of `Get-MpComputerStatus` fleet-wide at time of disclosure, archived as the pre-remediation Defender version inventory; (3) a written record of the single-source disclosure origin, including the publishing platform, author attribution (if any), and absence of MSRC, CISA, or NVD corroboration — this supports the post-incident finding that confidence was LOW and justifies the deferred triage classification.

Detection Guidance

No confirmed IOCs are available for BlueHammer. Detection should focus on behavioral indicators consistent with T1068 (Exploitation for Privilege Escalation) and CWE-269 (Improper Privilege Management). Key log sources and signals: (1) Windows Security Log, Event ID 4672 for sensitive privilege assignment to unexpected accounts; Event ID 4688 with process elevation tokens on Defender-related processes (MsMpEng.exe, MpCmdRun.exe, MsSense.exe). (2) Sysmon, Event ID 1 for process creation with integrity level elevation; Event ID 10 for unexpected process access to Defender service processes. (3) EDR telemetry, flag privilege escalation chains where a low-integrity process spawns or injects into a high-integrity Defender process. No specific YARA rules, network signatures, or hash-based IOCs can be provided given the absence of confirmed technical details. Confidence in any detection based solely on this disclosure is LOW until MSRC or a corroborating technical source publishes exploitation details.

Framework Mappings

MITRE-ATTACK

- **T1068** — Exploitation for Privilege Escalation

NIST-800-53R5

- **AC-6** — Least Privilege
- **SC-7** — Boundary Protection
- **SI-2** — Flaw Remediation
- **IR-5** — Incident Monitoring

OWASP-TOP10-2021

- **A01:2021** — Broken Access Control

CIS-V8

- **5.4** — Restrict Administrator Privileges to Dedicated Administrator Accounts
- **6.8** — Define and Maintain Role-Based Access Control
- **7.3** — Perform Automated Operating System Patch Management
- **7.4** — Perform Automated Application Patch Management

ISO-27001-2022

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

- **A.5.21** — Managing information security in the ICT supply chain

SOC2-TSC

- **CC9.2** — Manages risks associated with vendors and business partners
- **CC6.3** — Authorizes, modifies, or removes access

NIST-CSF-2

- **DE.AE-08** — Incidents are declared when adverse events meet the defined incident criteria

MITRE ATT&CK Mapping

Technique ID	Technique Name	Tactic
T1068	Exploitation for Privilege Escalation	Privilege-Escalation

Sources

Source	URL	Tier
Microsoft Defender Vulnerability Management	https://learn.microsoft.com/en-us/defender-vulnerability-management...	T1
Microsoft Defender Vulnerability Management | Microsoft Security	https://www.microsoft.com/en-us/security/business/threat-protection...	T1
Microsoft Windows Defender security vulnerabilities, CVEs, versions ...	https://www.cvedetails.com/product/9767/Microsoft-Windows-Defender....	T3
Microsoft Defender Vulnerability Management - YouTube	https://www.youtube.com/watch?v=QIwrpjpqrBc	T3
Microsoft Confirms Critical Windows Defender Security Vulnerability	https://www.forbes.com/sites/daveywinder/2024/12/14/new-critical-wi...	T3

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