OWASP MCP Top 10

Compliance assessment — 2025

Server: mcp-neo4j-memory-server

Slug: mcp-neo4j-memory-server
Scan id: ee34d279-5eb8-4b0a-9125-6df1faee760e

Assessed at: 2026-05-24 06:55:36 UTC
Sentinel version: 0.4.0
Rules version: 2026-04-23

' Non-compliant

DRAFT for review — not legal advice. See attestation block for verification instructions.

DRAFT

Table of contents

1. Executive summary
2. Coverage & transparency
3. Controls summary
4. Control details
5. Multi-step attack chains
6. Cryptographic attestation

1. Executive summary

Assessment of mcp-neo4j-memory-server against OWASP MCP Top 10: overall status non compliant. Of 10 controls, 0 met, 2 unmet, 0 partial, 8 not assessed, 0 not applicable. 2 control(s) had complete mapped-assessor execution evidence; 8 lacked sufficient execution evidence and 0 were outside the current assessor mapping. Unmet controls have findings at or above the framework's mandatory severity threshold and should be remediated before relying on this server in a regulated deployment. All claims are traceable to individual finding rows via finding_id and to the governing rule via rule_id; the enclosing signed envelope commits MCP Sentinel to the exact bytes of this report.

2. Coverage & transparency

Coverage band: medium

Coverage ratio: 66%

Rules version: 2026-04-23

Analysis techniques applied:

- ast-taint
- composite
- cross-module
- dependency-audit
- entropy
- similarity
- structural
- stub

3. Controls summary

ControlName	Status	Evidence
MCP01Prompt Injection?	Not	

assessed0
MCP02Tool Poisoning? Not assessed0
MCP03 Command Injection? Not assessed0
MCP04Data Exfiltration? Not assessed0
MCP05 Privilege Escalation? Not assessed0
MCP06 Excessive Permissions? Not assessed0
MCP07 Insecure Configuration ? Not assessed0
MCP08 Dependency Vulnerabilities' Unmet1
MCP09 Logging & Monitoring Failures? Not assessed0
MCP10Supply Chain Compromise' Unmet1

4. Control details

MCP01 — Prompt Injection

? Not assessed

0/24 mapped assessor rule(s) are proven to have executed; no adverse findings were observed, but the control is not assessed because execution evidence is incomplete. Unexecuted assessors: A1 (execution-ledger); A5 (execution-ledger); A7 (execution-ledger); A8 (execution-ledger); A9 (execution-ledger); B5 (execution-ledger); F1 (execution-ledger); F6 (execution-ledger); G1 (execution-ledger); G2 (execution-ledger); G3 (execution-ledger); G4 (execution-ledger); G5 (execution-ledger); H2 (execution-ledger); H3 (execution-ledger); I3 (execution-ledger); I6 (execution-ledger); I7 (execution-ledger); J3 (execution-ledger); J5 (execution-ledger); J6 (execution-ledger); N4 (execution-ledger); N9 (execution-ledger); N12 (execution-ledger).

MCP02 — Tool Poisoning

? Not assessed

0/15 mapped assessor rule(s) are proven to have executed; no adverse findings were observed, but the control is not assessed because execution evidence is incomplete. Unexecuted assessors: A2 (execution-ledger); A4 (execution-ledger); A6 (execution-ledger); F2 (execution-ledger); F5 (execution-ledger); G6 (execution-ledger); I1 (execution-ledger); I2 (execution-ledger); I5 (execution-ledger); I16 (execution-ledger); J5 (execution-ledger); J6 (execution-ledger); K12 (execution-ledger); K13 (execution-ledger); L15 (execution-ledger).

MCP03 — Command Injection

? Not assessed

0/6 mapped assessor rule(s) are proven to have executed; no adverse findings were observed, but the control is not assessed because execution evidence is incomplete. Unexecuted assessors: C1 (execution-ledger); C9 (execution-ledger); C13 (execution-ledger); C16 (execution-ledger); J2 (execution-ledger); J7 (execution-ledger).

MCP04 — Data Exfiltration

? Not assessed

0/15 mapped assessor rule(s) are proven to have executed; no adverse findings were observed, but the control is not assessed because execution evidence is incomplete. Unexecuted assessors: A3 (execution-ledger); F1 (execution-ledger); F3 (execution-ledger); F7 (execution-ledger); G7 (execution-ledger); I9 (execution-ledger); I13 (execution-ledger); K18 (execution-ledger); O4 (execution-ledger); O5 (execution-ledger); O6 (execution-ledger); O8 (execution-ledger); O9 (execution-ledger); O10 (execution-ledger); P3 (execution-ledger).

MCP05 — Privilege Escalation

? Not assessed

0/7 mapped assessor rule(s) are proven to have executed; no adverse findings were observed, but the control is not assessed because execution evidence is incomplete. Unexecuted assessors: C2 (execution-ledger); C8 (execution-ledger); C10 (execution-ledger); C12 (execution-ledger); I4 (execution-ledger); I12 (execution-ledger); J1 (execution-ledger).

MCP06 — Excessive Permissions

? Not assessed

0/7 mapped assessor rule(s) are proven to have executed; no adverse findings were observed, but the control is not assessed because execution evidence is incomplete. Unexecuted assessors: A2 (execution-ledger); B3 (execution-ledger); B7 (execution-ledger); E4 (execution-ledger); F2 (execution-ledger); I11 (execution-ledger); I16 (execution-ledger).

MCP07 — Insecure Configuration

? Not assessed

0/11 mapped assessor rule(s) are proven to have executed; no adverse findings were observed, but the control is not assessed because execution evidence is incomplete. Unexecuted assessors: B6 (execution-ledger); C7 (execution-ledger); C8 (execution-ledger); C11 (execution-ledger); C14 (execution-ledger); C15 (execution-ledger); D6 (execution-ledger); E1 (execution-ledger); E2 (execution-ledger); I15 (execution-ledger); J4 (execution-ledger).

MCP08 — Dependency Vulnerabilities

' Unmet

0/7 mapped assessor rule(s) are proven to have executed; 1 finding(s) observed (1 high); at least one finding is at or above the high threshold (status: unmet). 7 mapped assessor(s) did not execute, so this finding-backed result does not imply complete control coverage.

Evidence:

[High] Typosquatting Risk in Dependencies (finding 3ca84cc d-3628-4737- aa90- f2167bd026f0,

confidence 88%)

SOURCE: external-content at npm:ulid@3.0.0 — Dependency names are external content resolved from public package registries. A near-miss to a popular canonical name is a supply-chain anomaly under ISO

Required mitigations:

- Verify that the flagged dependency is the package you intended to install. Open the registry page for the candidate and compare publisher, publish date, download count, and postinstall scripts against the target. If it is not the intended package, replace it with the legitimate target, regenerate the lockfile, and audit the install environment (CI and developer machines) for any artifacts the malicious package may have written. Adopt a typosquat-aware package firewall (Socket.dev, Snyk Advisor, GitHub Dependabot) that rejects near-miss names at install time, in line with ISO 27001 A.5.21 supply-chain controls.

MCP09 — Logging & Monitoring Failures

? Not assessed

0/6 mapped assessor rule(s) are proven to have executed; no adverse findings were observed, but the control is not assessed because execution evidence is incomplete. Unexecuted assessors: C6 (execution-ledger); E3 (execution-ledger); K1 (execution-ledger); K2 (execution-ledger); K3 (execution-ledger); K20 (execution-ledger).

MCP10 — Supply Chain Compromise

' Unmet

0/27 mapped assessor rule(s) are proven to have executed; 1 finding(s) observed (1 high); at least one finding is at or above the high threshold (status: unmet). 27 mapped assessor(s) did not execute, so this finding-backed result does not imply complete control coverage.

Evidence:

[High] Typosquatting Risk in Dependencies (finding 3ca84cd-3628-4737-aa90-f2167bd026f0, confidence 88%)

SOURCE: external-content at npm:ulid@3.0.0 — Dependency names are external content resolved from public package registries. A near-miss to a popular canonical name is a supply-chain anomaly under ISO

Required mitigations:

- Verify that the flagged dependency is the package you intended to install. Open the registry page for the candidate and compare publisher, publish date, download count, and postinstall scripts against the target. If it is not the intended package, replace it with the legitimate target, regenerate the lockfile, and audit the install environment (CI and developer machines) for any artifacts the malicious package may have written. Adopt a typosquat-aware package firewall (Socket.dev, Snyk Advisor, GitHub Dependabot) that rejects near-miss names at install time, in line with ISO 27001 A.5.21 supply-chain controls.

5. Multi-step attack chains

No multi-step attack chains were synthesized for this server.

6. Cryptographic attestation

Algorithm: `HMAC-SHA256`
Key ID: `mcps-hkdf-e8990a4e1526`
Signer: `mcp-sentinel/v1`

Signed at: 2026-05-24
T06:55:36.579Z
Canonicalization:
RFC8785

HMAC-SHA256 signature (base64, wrapped at 64 chars):

```
Pb4wlvsa2tGfqBK0hp9BC4vESfvqPLN4d5HYO1XNFY8=
```

Verification instructions:

```
To verify this report:
  1. Extract the report body (everything except the .attestation field).
  2. Canonicalize the body via RFC 8785 (JCS).
  3. Compute HMAC-SHA256 with the signing key for key_id "mcps-hkdf-e8990a4e1526".
  4. Base64-encode the result and compare with the signature above.
```