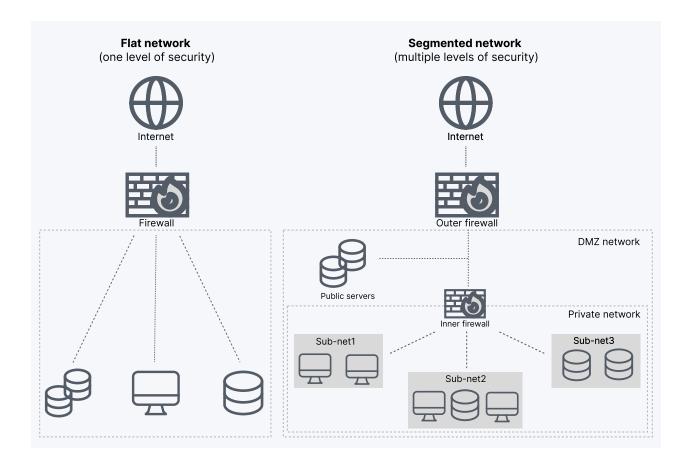


Q

Security checklist

The following checklist highlights the specific areas within Neo4j that may need extra attention to ensure the appropriate level of security for your application after Neo4j is deployed.

- 1. Deploy Neo4j on safe servers in secure networks:
 - a. Use subnets and firewalls to segment the network.



b. Open only the ports that you need. For a list of relevant ports, see Ports.

In particular, ensure that there is no external access to the port specified by the setting dbms.backup.listen_address. Failing to protect this port may open a security hole by which an unauthorized user can make a copy of the database onto a different machine.

2. Protect data-at-rest:



- a. Use volume encryption (e.g., Bitlocker).
- b. Manage access to database dumps and backups. Refer to <u>Back up an offline database</u> and backups <u>Back up an online database</u> for more information.
- c. Manage access to configuration files, data files, and transaction logs by ensuring the correct file permissions on the Neo4j files. Refer to <u>File permissions</u> for instructions on permission levels.

3. Protect data-in-transit:

- a. For remote access to the Neo4j database, only use encrypted Bolt or HTTPS.
- b. Use SSL certificates issued from a trusted Certificate Authority.
- c. For configuring your Neo4j installation to use encrypted communication, refer to <u>SSL</u> <u>framework</u>.
- d. If using clustering, configure and use encryption for intra-cluster communication. For details, see Intra-cluster encryption.
- e. If using clustering, configure and use encryption for backups. This ensures that only servers with the specified SSL policy and SSL certificates can access the server and perform the backup.
- f. For configuring your Bolt and HTTPS connectors, refer to Configure network connectors.
- g. If using LDAP, configure your LDAP system with encryption via StartTLS. For more information, see <u>Use LDAP with encryption via StartTLS</u>.

4. Be on top of the security for custom extensions:

- a. Validate any custom code you deploy (procedures and unmanaged extensions) and ensure that they do not unintentionally expose any parts of the product or data.
- b. Survey the settings <u>dbms.security.procedures.unrestricted</u> and <u>dbms.security.procedures.allowlist</u> to ensure that they exclusively contain intentionally exposed extensions.
- 5. Make sure you have the <u>correct file permissions</u> on the Neo4j files.
- 6. Protect against the execution of unauthorized extensions by restricting access to the *bin*, *lib*, and *plugins* directories. Only the operating system user that Neo4j runs as should have permissions to those files. Refer to <u>File permissions</u> for instructions on permission levels.
- 7. With LOAD CSV enabled, ensure that it does not allow unauthorized users to import data. How to configure LOAD CSV is described in <u>Cypher Manual \rightarrow LOAD CSV</u>.

- 8. Use Neo4j authentication. The setting dbms.security.auth_enabled controls native authentication. The default value is true.
- 9. Survey your <u>JVM-specific configuration settings</u> in the *neo4j.conf* file for ports relating to deprecated functions, such as remote JMX (controlled by the parameter setting dbms.jvm.additional=-Dcom.sun.management.jmxremote.port=3637).
- 10. Review <u>Browser credentials handling</u> to determine whether the default credentials handling in Neo4j Browser complies with your security regulations. Follow the instructions to configure it if necessary.
- 11. Use the latest patch version of Neo4j and set up a process to update it when security advisories are published.

Prev

Next

Browser credentials handling

<u>Performance</u> →



Nov 6 2025

The Call for Papers is now open and we want to hear about your graph-related projects. Submit your talks by June 15

Submit your talk

LEARN SOCIAL CONTACT US \rightarrow

Sandbox	y <u>Twitter</u>	US: 1-855-636-4532
Neo4j Community	<u>Meetups</u>	Sweden +46 171 480 113
<u>Site</u>	Github	UK: +44 20 3868 3223
Neo4j Developer Blog	Stack Overflow	France: +33 (0) 1 88 46 13
Neo4j Videos		20
GraphAcademy	Want to Speak?	
Neo4j Labs		

© 2025 Neo4j, Inc.

Terms | Privacy | Sitemap

Neo4j[®], Neo Technology[®], Cypher[®], Neo4j[®] Bloom[™] and Neo4j[®] Aura[™] are registered trademarks of Neo4j, Inc. All other marks are owned by their respective companies.