

Hardware and Software Requirements for the usage of NEXIS 4

1. General

NEXIS 4 can be operated on a dedicated server, virtualized (e.g., via ESXi) as well as containerized (Docker). The requirements differ according to the number of objects, assignments, and target systems (applications). The following hardware requirements should be taken as guide values for operating the software. The NEXIS 4 license can be activated via two ways:

a) Activation via license server:

The application server activates its license via contacting the license server at <https://license.nxsec.de>. NEXIS 4 is activated each month for another month based on the licensing information stored within the license server. If the application cannot contact the license server for more than one month, the software access is deactivated.

b) Activation via license file:

The license file is provided by Nexis in a 6-month cycle. Individual agreements on the delivery interval can be made with the vendor.

For cloud deployments (e.g., Amazon, AWS), individual agreements need to be made with the vendor.

2. Hardware requirements

The hardware requirements depend on the number of managed objects and the expected number of NEXIS 4 users. Managed objects are employees, accounts, system entitlements and business roles that are imported or created in NEXIS 4. Depending on how many relations between these objects exist or on how many target systems (applications) they are distributed, hardware requirements may have to be adapted. In respect to the number of NEXIS 4 users, the given requirements refer to a typical IAM team. If the software is used for company-wide (re-)certification, the hardware requirements and staging concept may have to be adapted.

a) Option 1: Application and database server combined setup

Objects	Application and database server
0 – approx. 25.000	6-core processor (e.g., Intel i7)
	16 GB memory
	150 GB high-performance hard disk (e.g., SSD)
25.000 – approx. 60.000	8-core processor (e.g., Intel i7)
	24 GB memory
	200 GB high-performance hard disk (e.g., SSD)
60.000 +	in consultation

b) Option 2: Application and database server disjunct setup

Objects	Application server	Database server
0 – approx. 25.000	6-core processor (e.g., Intel i7)	4-core processor (e.g., Intel i5)
	16 GB memory	6 GB memory
	120 GB hard disk space	60 GB high-performance hard disk (e.g., SSD)
25.000 – approx. 60.000	8-core processor (e.g., Intel i7)	4-core processor (e.g., Intel i5)
	16 GB memory	6 GB memory
	200 GB hard disk space	120 GB high-performance hard disk (e.g., SSD)
60.000 +	in consultation	in consultation

It is recommended to operate application and database servers on one (virtual or physical) machine. All specifications refer to the requirements of the given software. Additional resources must be provided for the operating system and other resources.

3. Software requirements

NEXIS 4 can be operated with various software stacks. Our recommendation is highlighted in bold in the following table. The software itself is delivered as a Java WAR file. The delivered WAR file contains the NEXIS 4 basic software. It is therefore necessary to provide additional JARs via the application server. The application servers delivered by Nexis are already completely configured. If an own version is used, it must be adapted.

Objects	Supported products (preferred "bold" highlighted)
Operating system	Windows Server 2022 / 2019, Ubuntu 20 / 22 / 24, RHEL 8 / 9
Java	OpenJDK 17 (Eclipse Adoptium), OpenJRE 17 (Eclipse Adoptium)
Application server	Apache Tomcat 10.1
Database	PostgreSQL 16, 15, 17
Web browser	Microsoft Edge, Google Chrome, Mozilla Firefox

4. Containerized deployment

NEXIS 4 can be operated as a container. For this purpose, the manufacturer provides a Docker image based on Ubuntu, which includes the application server (Tomcat), OpenJDK, and NEXIS 4. The database must be provided separately. The image can be run either as a standalone container or within a cluster (e.g. Kubernetes, OpenShift). The hardware requirements remain unchanged. The software requirements are modified in that the container engine used must support Linux-based images.

Comments:

- a) NEXIS 4 requires full access to the PostgreSQL database. This includes a) authorizations to create and delete databases, b) full DDL and DML permissions, and c) creation and recovery of SQL archives.
- b) NEXIS 4 requires full access to a directory (and its subfolders). This can be configured per installation.
- c) The Java delivered by Nexis may be replaced by an existing Java. NEXIS 4 can be operated with both, a JRE and a JDK.

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