

GINIS 2026

Compatibility list - Technology

From version 5.26.3
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1. Initial information

GINIS is a modular information system that is capable of working in various environments.

GINIS runs in both thick client and web client architecture and supports 3 database systems. Several office system types, electronic documents storages and mailing systems are also supported.

GINIS is integrated with external data sources.

GINIS is ready for on-premise or cloud deployment.

2. Supported database systems

The GINIS information system supports these database systems:

- Oracle Database
- IBM Informix Server
- Microsoft SQL Server

To achieve reliable system operation, the database server needs to have sufficient resources (processor performance, physical RAM).

Estimation of minimal RAM for database server: 8 GB + (100 MB * users number)

64-bit database system is required in case of operation of 64-bit GINIS modules or when working with files larger than 2 GB.

2.1. Oracle Database

Applicable editions and versions

- **Oracle 19c** - Edition SE2 or EE from version 19.4. GINIS database can only run as regular non-CDB. Data is stored in collation ANSI CP1250.
- **Oracle 21c** - Only on request
- **Oracle 26ai** - From version 23.26. GINIS database can only run as regular container PDB. The recommended configuration for operating a GINIS database is to have one or more CDB dedicated only to GINIS. In these CDB have the production PDB database together with its test clones. Data is stored in the basic collation (character set) AL32UTF8 (national character page AL16UTF16). The condition is to use the parameter `MAX_STRING_SIZE=EXTENDED`.

2.2. IBM Informix Server

Applicable editions

- Workgroup Edition
- Enterprise Edition
- Advanced Enterprise Edition

Applicable versions

- 14.10 xC7 and higher

Other information

- see <https://www.ibm.com/support/pages/node/320749>
- Data is stored in encoding ANSI CP1250

2.3. Microsoft SQL Server

Applicable editions

- Enterprise Edition
- Standard Edition
- Developer Edition
- Express Edition

SQL Server applicable versions

- SQL Server 2016 + SP3, build 13.0.6300.2, not recommended due to end of producer support until 17.7.2026 and cyber-security reasons. Will be without support in GINIS 5.28.
- SQL Server 2017 + CU19, build 14.0.3281.6
- SQL Server 2019 + CU15, build 15.0.4198.2
- SQL Server 2022 + RTM, build 16.0.1000.6
- SQL Server 2025, build 17.0.1000.7
- SQL Server on Linux 2017, 2019, 2022 - specific issues related to implementation on Linux OS will not be addressed.

Depending on the specific version of the GINIS database, you may be forced to upgrade SQL Server. It is not possible to specify the minimum necessary build of SQL Server. We recommend that you regularly install the latest available update, optimally following the instructions on the site:

<https://sqlserverupdates.com/>

<https://learn.microsoft.com/en-us/troubleshoot/sql/releases/download-and-install-latest-updates>

Other information

- **HW a SW requirements for SQL Server:** <https://learn.microsoft.com/en-us/sql/sql-server/install/hardware-and-software-requirements-for-installing-sql-server-2022>
- **Required settings for GINIS:**
 - Authentication method: SQL Server a Windows (Mixed mode)
 - Communication protocol: TCP/IP
- **Recommended settings for GINIS:**
 - SQL Server collation: Czech_CI_AS
 - Format the disk for data and transaction log with NTFS Allocation Unit Size = 64 KB
- **Azure SQL Database:**
 - Managed Instance
 - Elastic Pool
 - Single Database

Data storage

- New implementations (from year 2019) - **Unicode**
- Older implementations - **ANSI CP1250**
- Azure SQL Database - **Unicode**
- Migration of older databases to Unicode is possible (as a service).

3. Client environment

GINIS runs in both thick client and web client architecture.

The **thick client** is created as a 32-bit program. It is based on these technologies:

- Win32
- MS .NET Framework

The **web client** is created in Microsoft .NET Framework. Runs in 64-bit mode or in 32-bit mode.

In the case of working with files larger than 2 GB, the modules are required to run in 64-bit mode.

3.1. Thick client

Minimal requirements

- RAM min. 8 GB
- Hard disk space min. 10 GB
- for some modules with heavy loads (for example GSAPOD01) is necessary efficient HW (CPU RAM 8 GB, SSD)
- Display screen resolution min. 1024×768 with 100% magnification color depth 32 bits

Operating system

- Microsoft Windows 10 Anniversary Update and higher - not recommended due to end of producer support and cyber-security reasons.
- Microsoft Windows 11
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Microsoft Windows Server 2025

Oper. system must support application language settings.

For Windows 11, disabling the Smart App Control feature is recommended.

In case of incompatible changes caused by a Windows Update, GINIS will be fixed within 30 days after the update release.

Database system client

- **Oracle Database:**

- 32 bit: Oracle Client version 11.2.0.2, 12.2.0.1, 19.1.0.0, 19.3.0.0
- 32 bit: Oracle OLE DB provider version 11.2.0.2, 12.2.0.1 (installation as a part of the GINIS client recommended)

- **Microsoft SQL Server:**

- Microsoft ODBC Driver 17 for SQL Server (x86 + x64)
- Microsoft OLE DB Driver 18 for SQL Server (x86 + x64)
- Microsoft SQL Server 2012 Native Client (x86 + x64)

- **IBM Informix:**

- 32 bit: IBM Informix Client version 3.70 TC8, 4.10 TC15

Another system software

- Microsoft.NET Framework v. 4.8 (in some cases Microsoft.NET Framework ver. 3.5 is needed)
- Microsoft Edge in compatible mode IE11, eventual Mozilla FireFox
- Microsoft Windows Installer 3.1 and higher
- Microsoft Visual C++ 2010 Redistributable (x86 + x64)
- Microsoft Visual C++ 2013 Redistributable (x86 + x64)
- Microsoft Visual C++ 2015-2019 Redistributable (x86 + x64)

Automatic updates of the GINIS clients

For the successful work of automatic updates of the GINIS client, it is necessary:

- enabling system service GSSINS01.EXE
- the right to write to the installation directory GINIS
- the right to write to the register Computer_LOCAL_MACHINE
- the right to write to the register Computer_CURRENT_USER
- the right to register system objects (COM,OLE), installation of fonts and MSI third parties

3.2. Web client

Minimal requirements

- RAM min. 4 GB
- Hard disk space min. 4 GB
- Display color depth 32 bits

Operating system

- Microsoft Windows 10 - not recommended due to end of producer support and cyber-security reasons.
- Microsoft Windows 11
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Microsoft Windows Server 2025

In case of incompatible changes caused by a Windows Update, GINIS will be fixed within 30 days after the update release.

Another system software

- **Web client 05** (a new technology GWAxxx05)
 - Microsoft Edge (updated, only official distribution)
 - Google Chrome (updated, only official distribution)
 - Mozilla FireFox (updated, only official distribution)
 - Safari (updated, only official distribution)

Obsoleted technology will be supported only to version GINIS 2023

Web browser settings for appropriate webserver

- Active scripting - enabled (javascript)
- Cookies - enabled (for authorization only)
- Access data sources across domains (for verification in the state registry only)
- HTTPS protocol is required for using web client

Additional requirements for client certificate signing

- **Microsoft Edge a Google Chrome:**

- GBE - Gordic Browser Extensions (shortly GBE)
- Rights for install fonts and MSI GBE - Gordic Browser Extension. (alternatively is possible to solve via Domain policies)

- **Mozilla FireFox:**

- GBE is not supported addin offline installation
- Rights for install fonts

- **Safari:**

- GBE is not supported
- see more Certificate signing

4. Web application server

System GINIS Web client must be run on a web application server.

Minimal requirements

- RAM min. 8 GB
- Hard disk space min. 8 GB
- for some modules with heavy load consuming applications need high performance HW (CPU with high core frequency, RAM 16 GB, SSD)
- Display screen resolution min. 1024×768 with 100% magnification color depth 32 bits

Operating system

- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Microsoft Windows Server 2025

Oper. system must support application language settings.

Operation on Windows Server Core is not supported.

Operating system and IIS mode is required 64-bit.

Recommended edition: Standard or higher. The edition of the operating system must be chosen according to the hardware and according to the Microsoft licensing rules, see:

<https://www.microsoft.com/en/windows-server/pricing>

In case of incompatible changes caused by a Windows Update, GINIS will be fixed within 30 days after the update release.

Database system client

- **Oracle Database:**
 - 64 bit: Oracle Client version 11.2.0.2, 12.2.0.1, 19.1.0.0, 19.3.0.0
 - 64 bit: Oracle OLE DB provider version 11.2.0.2, 12.2.0.1 (installation as a part of the GINIS client recommended)
- **Microsoft SQL Server:**
 - Microsoft OLE DB Driver 18 for SQL Server
- **IBM Informix:**
 - 32 bit: Informix OLE DB provider version 3.70 TC8, 4.10 TC15
 - 64 bit: Informix OLE DB provider version 4.10 FC15, 4.50 FC8

Another system software

- Microsoft IIS 7 or higher with ASP.NET support installed
- Microsoft.NET Framework ver. 4.8 (in some cases Microsoft.NET Framework ver. 3.5 and Microsoft Web Services Enhancements is needed)
- Microsoft .NET 8.0 (LTS) updated only from official distribution
- Microsoft Windows Installer 3.1 or higher
- WebSocket protocol support (recommended for thin client)
- HTTPS protocol is required for web client
- Microsoft .NET 10 will be required from version GINIS 5.27

5. Office software support

Using the 32-bit MS Office edition is necessary for full integration with GINIS more on [http://technet.microsoft.com/en-us/library/ee681792\(v=office.15\).aspx](http://technet.microsoft.com/en-us/library/ee681792(v=office.15).aspx)

Office software support in GINIS subsystems:

GINIS-SSL

- MS Office 2016 CZ, 2019 CZ, 2021 CZ, 2024 CZ
- MS Office 2016, 2019, 2021 are not recommended due to end of producer support and cyber-security reasons.
- MS Office 365 CZ - Windows applications
- OpenOffice Writer 3.0 and higher - basic support for generating data into form templates

Creating documents

el. documents created with GINIS-REG or GINIS-FIK

- MS Office 2016 CZ, 2019 CZ, 2021 CZ, 2024 CZ
- MS Office 2016, 2019, 2021 are not recommended due to end of producer support and cyber-security reasons.
- MS Office 365 CZ - Windows applications

Reports created by GORDIC Report generator

- MS Office 2016 CZ, 2019 CZ, 2021 CZ, 2024 CZ
- MS Office 2016, 2019, 2021 are not recommended due to end of producer support and cyber-security reasons.
- MS Office 365 CZ - Windows applications

RTF templates and grafical report export

- OpenOffice Writer 3.0 and higher

Grafical report export to PDF format

- Acrobat Reader ver. 9.0 and higher (format PDF ver. 1.4 and higher)

Recommended PDF viewers for PDF file preview

- Foxit Reader ver. 7 and higher

6. Electronic document storage

Scope of electronic document storage support:

Supported storage types

- GORDIC WS DMS
- ftp, sftp server
- Azure Blob Storage

Electronic document storage with full-text

Windows Search:

- can run only with WS DMS

7. Interface for mailing systems

Scope of email systems support in GINIS modules:

E-registry

- **e-mail reception** - with POP3, POP3S, Microsoft - GraphAPI

Redistribution node - Mail - inbox

- **E-mail download - thick client**

- Extended MAPI (only for 32-bit clients version and Microsoft Outlook 2016, 2019, 2021, 2024 Microsoft 365)
- MAPI (for 32-bit clients that support E-MAPI)
- POP3, POP3S, Microsoft - GraphAPI

- **E-mail download - thin client**

- POP3, POP3S, Microsoft - GraphAPI

- **E-mail sending - thick client**

- Extended MAPI (only for 32-bit clients version and Microsoft Outlook 2016, 2019, 2021, 2024 Microsoft 365)
- SMTP, SMTPS, SMTP (XOAUTH2)

- **E-mail sending - thin client**

- SMTP, SMTPS, SMTP (XOAUTH2)

General usage

- **E-mail message format**

- MIME
- UUEncode (with SMTP protocol only)

Others

SMTP and POP3 are supported only based on combination of GINIS parameters, not on systems third-party systems. Unfortunately, we cannot guarantee cooperation with all email service providers. It is possible to make validation due to option **Send test email** in module **ADX - Administration**. Requests for support other mail servers (outside combination of GINIS parameters) are considered as request for new features.

Recommended

Support for the SMTP protocol via **SMTP send type** is not promising and will be phased out. It does not guarantee robust functionality on modern SMTP server implementations. Problems can be expected especially in the SSL/TLS domain.

If the environment allows it, please switch to the **SecureBlacbox** type. It has two major advantages:

- Modern SSL/TLS support
- Support for non-standard login procedures - controlled by the **gin_gms_tlsstep** parameter

Support for the original SMTP implementation will be gradually reduced.

It is recommended to use **System management, Email testing** tool, there is available in the **ADM05** or **ADX05** modules.

8. Bar code support

Bar code using:

Bar code supported type

- Code 39

TrueType fonts delivered with GINIS system

- CK GINIS (for minimal 30 dot points)
- CK GINIS small (for minimal 15 dot points)
- GORDIC_PID

9. Digital signature and electronic sealing support

Digital signature and electronic sealing support:

Digital signature view in Acrobat Reader

- Acrobat Reader ver. 9.2 and higher

Rules for digital signature validation

On computer where validating process answers, it is necessary to install:

- certificates of CA that have issued the certificate used for creating the validated digital signature
- certificates of CA that have issued the certificate used for creating CRLs or OCSP answers

On-premise Qualified electronic seal support

- ProID card
- SafeNET HSM module

Remote sealing

- I.CA RemoteSeal
- I.CA RemoteSeal v2
- 602 SecuSign
- NCA Sealing (Sealing from National Certification Authority)

Cloud electronic signature

- 602 SecuSign

Qualified verification

- 602 SecuSign
- I.CA QVerify

10. Automatic scanner support

Scanner with automatic feeder support:

Document scanning

- **Resolution**
 - 300 DPI recommended
 - 600 DPI maximal
- **Type of file**
 - multipage TIFF recommended

Scanning software

- **GINIS GSL** - recommended 3rd party solution
 - Tesseract OCR
 - ABBYY FineReader Engine 11, 12
- **GINIS MAS** - recommended 3rd party solution
 - ABBYY Recognition server
 - Konica Minolta
 - Sirius

11. File conversion to PDF and PDF/A format

File conversion to PDF and PDF/A format:

Only one MS Office version can be installed on a conversion computer (MS Office version combination is not allowed). (the combination of MS Office versions is not possible)

Conversion to PDF/A format

- **Server solutions**

- GORDIC DKS - Document conversion server
- Adobe Experience Manager Forms 6.4
- Adobe LiveCycle Enterprise Suite ver. 2, 3
- Adobe LiveCycle Enterprise Suite ver. 4 (recommended according to PDF/A standard)
- S602 Long-Term Docs

- **Conversion on client's PC (for thick client GINIS only)**

- Microsoft Office 2016, 2019, 2021, 2024, 365 (recommended for best results according to PDF/A standard)
- PDF Creator version 1.7.3
- LibreOffice version 7.5, 7.6 a 24.2

Conversion to PDF format

- **Server solutions**

- GORDIC DKS - Document conversion server
- Adobe Experience Manager Forms 6.4
- Adobe LiveCycle Enterprise Suite ver. 2, 3, 4
- S602 Server Enterprise Edition (Print2PDF 8, 9, X)
- S602 Long-Term Docs

- **Conversion on client's PC (for thick client GINIS only)**

- PDF Creator od version 1.7.3
- Microsoft Office 2016, 2019, 2021, 2024, 365
- LibreOffice version 7.5, 7.6 a 24.2
- Software602 Print2PDF 8, 9, X

12. GORDIC DKS - Document conversion server

Minimal requirements

- RAM min. 6 GB
- CPU (in the case of using multiple functions, it is necessary to make a sum)
 - for verify el. signature min. 8 core
 - for sealing min. 4 core
 - for conversion to PDF min. 4 core
 - for validation PDF/A min. 2 core
 - for file format validation min 2 core

Operating system

- Microsoft Windows 10 - not recommended due to end of producer support and cyber-security reasons.
- Microsoft Windows 11
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022
- Microsoft Windows Server 2025

a 64-bit operating system is required when working with files bigger like 2 GB.

Another system software

The architecture (32bit/64bit) of the installed third-party software must match the architecture in which the DKS system service is running.

- **Required:**
 - LibreOffice 32 bit version 7.0, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 24.2, 24.8 or 25.2 (the combination of LibreOffice and OpenOffice is not possible)
 - Ghostscript 9.10 and higher
 - PDF24 10.0 and higher
 - WKHTMLTOPDF (for conversion EML and HTML to PDF)
 - Adobe Reader DC
 - Microsoft SQL Server (according to the specifications in the chapter 2.3.)

- **Optional:**

- PDFCreator version 1.7.3
- Microsoft Office Word 2016, 2019, 2021, 2024, 365
- Microsoft Office Excel 2016, 2019, 2021, 2024, 365
- Microsoft Office PowerPoint 2016, 2019, 2021, 2024, 365
- Microsoft Office Outlook 2016, 2019, 2021, 2024, 365 (conversion MSG to PDF)
- S602 FormFiller 4.52.29.13.0726 and higher (conversion ZFO to PDF)
- ABBYY FineReader Engine 11,12
- Tesseract OCR version 5.0.0 and higher
- MS Office 2016, 2019, 2021 are not recommended due to end of producer support and cyber-security reasons.

13. Communication with the ISZR interface

Use the TLS 1.2 protocol for communication with the interface of ISZR basic registers at least.

14. Communication with the ISDS interface

- It is necessary to use the POD - and ZUD in 64-bit version for work with large-volume data messages
- Work with large-volume files using antivirus interface AMSI is limited to 20 MB. It is necessary to use other than AMSI interface for work with larger than 20MB files.
- The limit for a single message cannot exceed 1 GB.

15. Microsoft Azure support

GINIS runs in hosting centers (clouds) as IaaS (as an application installed on virtual machines).

In addition, in Microsoft Azure environment is possible:

- to use Azure SQL Database
- to use Azure Blob Storage
- to run GINIS thin client as Azure WebApp

Azure WebApp specification of scaling for GINIS applications operation

- Minimal supported Plan for operation environment has to take count of users, count of apps, count of organizations and size of database into account
- Minimal supported Plan for test environment is P0v3 1Cpu/4GB for operation 15 apps GINIS Web Client technology and one user.

16. Multi-factor authentication

Supported multi-factor authentication types:

Type multi-factor authentication

- TOTP
- passwordless against MS Entra ID (Web client only)

Supported mobile applications

- Google Authenticator
- TOTP Authenticator (fy. Binaryboot)
- Microsoft Authenticator - passwordless authentication (Web client only)

17. Payment terminals support

Payment terminals are supported according to specific protocols in relation to the type of client:

Fat client

- Protocol GPE (Global Payments) - support Ethernet and ComPort - ČS a KB bank
- Protocol SONET, HyperCom - support Ethernet and ComPort - Unicredit, Raiffeisen, Moneta Money Bank bank
- Protocol Monet+ GAPA - support Ethernet - ČSOB bank

Web client

- Protocol Monet+ GAPA - support Ethernet - ČSOB bank
- Protocol GPE (Global Payments) - support Ethernet, WiFi, SIM 3G,4G/LTE
- Protocol SONET, HyperCom - support Ethernet
- Comgate, dle GSA Bluetooth API verze 2.0 - support Ethernet, WiFi
- Dotypay, dle Nexo protocol v3.1 - support Ethernet, WiFi, SIM 3G,4G/LTE

18. Supported formats of third party

There are supported formats of third parties, without legislation defined formats and protocols:

- ISDOC formats 6.xxx

19. Data transfer support for Unix operational system

Data transfer support for Unix operational system

Enviroment requirements

- operational system IBM AIX
- database server IBM Informix Dynamic Server
- client database enviroment IBM Informix Client

Other system software

- IBM Informix Client SDK + ESQL/C
- IBM Open XL C/C++ for system AIX

20. Integration with artificial intelligence (AI) services and tools

IS GINIS is integrated with artificial intelligence services Azure OpenAI / Cognitive Services. Communication between IS GINIS modules and these services takes place via a connector in the AIB module - Application Internet Gateway.

20.1. Integration with Azure OpenAI / Cognitive Services

The customer must have their own Azure subscription with activated services for working with Azure OpenAI language models, Azure Cognitive Search for RAG.

Customer is responsible for:

- creation and management of relevant Azure resources
- management of access keys or Managed Identity
- selection and configuration of language models
- setting up data resources for RAG, if used

AIB - Application Internet Gateway communicates with Azure via REST API connectors, the functionality of which requires:

- outbound HTTPS connections to Azure endpoints
- valid authentication tokens / keys
- correct assignment of roles and permissions in Azure (at least for reading and calling models)