SOFT-SOLUTIONS

System requirements versions 5.18., 6.18., 7.18.

(Version: 21.03.2018)

soft-nrg
automobile business solutions

Change history

Version	Version	Description
21.03.2018	1.0	Release of Windows Server 2016 as the terminal server, Support of the file systems extended by ReFS, Update of the IP addresses in the Firewall and Proxy field, Warning note for Microsoft SQL Server added to the domain controller

Foreword

Installation of SOFT-SOLUTIONS in your branch can not be carried out on a standardised basis, nor can generally binding guidelines for the technical prerequisites be defined. This documentation can only provide you with general technical instructions.

The dimensions of the hardware for server and clients takes into account that apart from SOFT-SO-LUTIONS, any other applications can be used on the corresponding systems. The requirements which are described have therefore been designed with a view to safety and performance.

The following installation versions have been described:

- Installation versions client server (local network)
- Installation versions terminal server/Citrix

Our helpdesk will be delighted to help you should you have any questions:

Helpdesk

T +49 89 452280-400
T +49 89 452280-401
helpdesk@soft-nrg.de

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1   Installation versions client server (local network)

SOFT-SOLUTIONS is a client-server application. Communication between client and server is based on TCP/IP and ODBC data sources. It is not necessary to make a connection between the client and the server (SQL database).

1.1   Database server

1.1.1   Microsoft SQL database server

The following versions of Microsoft SQL can be used:

- 2012
- 2012 R2
- 2014
- 2016

The **Microsoft SQL Express Edition** is a database system from Microsoft; its licence permits free-of-charge use for any purpose without written agreement.

If you require SOFT-SOLUTIONS to be installed on an SQL Standard 2012 database server or in a higher version, this must be ready installed at the point of the installation appointment and be configured and available.

If, on the other hand, an installation on a 2012, 2012 R2, 2014, 2016 Express Edition database server is requested, this can be carried out by soft-nrg Development GmbH during the installation of SOFT-SOLUTIONS.

You are strongly advised not to use Microsoft SQL Server on a domain controller. This instruction comes from Microsoft, see: *https://technet.microsoft.com/de-de/library/ms144228(v=sql.110).aspx* and *https://support.microsoft.com/de-de/help/2032911/you-may-encounter-problems-when-installing-sql-server-on-a-domain-cont*

If you have installed one or several instances of Microsoft SQL Server 7, MSDE 1.0 which do not affect SOFT-SOLUTIONS on the server provided, no further installation of SOFT-SOLUTIONS below Microsoft SQL Server 2012, 2012 R2, 2014, 2016 Express can be carried out. In this case, the available instances must first be migrated to the MSSQL Server 2012 or higher. This migration is **not** carried out by soft-nrg Development GmbH.

1.1.2   Oracle Database server

The Oracle Database server can be used in the version **Oracle 11g Release 2** and **Oracle 12c Release 1**.

If you require SOFT-SOLUTIONS to be installed on an Oracle 11g Release 2 or Oracle 12c Release 1 database server, this must be ready installed at the installation appointment and be configured and available. This may not be the case for OEM clients.

1.1.3 Operating system requirements

Use of SOFT-SOLUTIONS with database servers is supported by the following server operating systems:

Compatibility list of servers (operating system and database servers)

- Windows 2008 Server (32-bit/64-bit)

    - Oracle 11g Release 2
    - Oracle 12c Release 1

- Windows 2008 Server R2 (64-bit)

    - MSSQL 2012
    - MSSQL 2012 R2
    - Oracle 11g Release 2
    - Oracle 12c Release 1

- Windows SBS 2011 Standard/Essential

    - MSSQL 2012
    - MSSQL 2012 R2

- Windows 2012 Server (64-bit)

    - MSSQL 2012
    - MSSQL 2012 R2
    - MSSQL 2014
    - MSSQL 2016
    - Oracle 11g Release 2 (from version 11.2.0.4)
    - Oracle 12c Release 1

- Windows 2012 Server R2 (64-bit)

    - MSSQL 2012
    - MSSQL 2012 R2
    - MSSQL 2014
    - MSSQL 2016
    - Oracle 11g Release 2 (from version 11.2.0.4)
    - Oracle 12c Release 1

- Windows 2016 Server – **only** Standard und Datacenter Version (64-bit)

    - MSSQL 2014
    - MSSQL 2016
    - Oracle 12c Release 1

Core and nano server installations are **not** supported. Always keep your system (operating system, browser etc.) updated to the latest version.

1.1.4   Hardware requirements

SOFT-SOLUTIONS has the following hardware requirements for your database server:

- Database system

    - MSSQL 2012 (32-/64-bit)
    - MSSQL 2012 R2 (32-/64-bit)
    - MSSQL 2014 (32-/64-bit)
    - MSSQL 2016 (64-bit)
    - Oracle 11g Release 2 (64-bit)
    - Oracle 12c Release 1 (64-bit)

- Processor

    - current processor technology for Business Service Area

- Working memory (RAM)

    minimum of 4 GB free and an additional 2 GB required for each additional branch within an instance/database with approx. 20 users working simultaneously

- Hard disk space

    - at least 25 GB free hard disk availability (current RAID technology is recommended)
    - additionally, a minimum of 25 GB for each additional instance/database

- Network card

    - at least 1 GBit/s

1.2 Client

The following operating systems are currently supported:

- Windows operating systems
  - 7 Professional, Enterprise, Ultimate (32-/64-bit*)
  - 8.1 (32-/64-bit*)
  - 10 Professional, Enterprise, Enterprise LTSP (32-/64-bit*)

- Processor
  - current processor technology for Business Workstation Area

- Working memory (RAM)
  - recommended depending on the operating system, however at least 2 GB

- Hard disk space
  - at least 10 GB of free hard disk availability

- Network card
  - at least 1 GBit/s

- Screen definition
  - from 1280 x 1024 pixels, a minimum of 16-bit colours
    Standard setting of the Windows display (the application display is optimised for the standard setting of the Windows display option for DPI, text and elements)

- Browser
  - current version of Chrome, Firefox or Internet Explorer

i Problems may arise with Windows operating systems with an active firewall unless they have been specially configured. Always keep your system (operating system, browser etc.) updated to the latest version.

** In 64-bit environments, SOFT-SOLUTIONS runs in 32-bit mode. The ODBC driver **must** be used and configured in the 32-bit version.*

1.3 Webserver

For communication between SOFT-SOLUTIONS modules and external systems, a webserver is required – this can be directly installed on the database server.

The hardware requirements are based on those of the database server.

The following points must be noted:

- Working memory (RAM)

  - recommended depending on the operating system, however at least 2 GB per database with one branch, a requirement for an additional 300 MB must be anticipated; each additional branch in the database requires approx. 100 MB more

- Hard disk space

  - at least 10 GB of free hard disk availability
    when using soft-pad, additional hard disk memory is required to store image files; this space depends on the camera resolution of the hardware used

1.4 Branch connection

In principle, a branch operation can be connected to the database server via long-distance telecommunication lines. For this, an **adequate line capacity** must be made available. A **standard fixed connection ("stand connection")** with sufficient bandwidth provides the necessary stability.

VPN connections via DSL without the use of a terminal server are **not** supported by soft-nrg Development GmbH.

A link via a standard fixed connection is **not** recommended.

2   Installation versions terminal server/Citrix

2.1   Installation versions Windows terminal server

The following terminal server operating systems are currently supported:

- Windows terminal server
    - 2008 (32-/64-bit)
    - 2008 R2 (64-bit)
    - 2012 (64-bit)
    - 2012 R2 (64-bit)
    - 2016 **only** standard or datacenter version (64-bit)

- Processor
    - current processor technology for Business Service Area
    - approx. one processor core for 10 users

      Example: For 40 users, this is 4 processor cores (40 users/10 users per core = 4 cores).

- Working memory (RAM)
    - approx. 100 MB per user, however at least 2 GB

      Example: For 40 users, this is 4 GB of working memory. For the operating system, an additional requirement of 2 GB of free working memory should be expected. This means a total of 6 GB more working memory in total.

- Hard disk space
    - at least 3 GB of free hard drive availability

- Network card
    - at least 1 GBit/s

- Printer
    - Configured for use with the terminal server

- Remote Desktop Client
    - installed at the workstations

- Branch connection
    - depending on the number of workstations
    - RDP protocol approx. 40 Kbit/s per client
    - ICA protocol approx. 14.4 Kbit/s per client

To give the dimensions of the terminal server, depending on the number of users accessing it, the following rules of thumb should be taken into account:

- The terminal server should have approx. 100 MB of additional working memory per user as well as hard disk availability of at least 500 MB. The more users are working on the terminal server, the higher the frequency of the processors. No more than 10 users are recommended for each processor core.

  The hardware which is available is statistically distributed depending on the number of users, which means that the terminal server allocates its resources dynamically. This means, if one user requires more resources than others, these resources will be assigned to that user on a dynamic basis.

  For performance reasons, the terminal server should not use the same hardware as the database server but should access it in the same way as a normal client. The same system requirements apply to the database server as described in *Chapter 1 – Installation versions Client-Server (local network)*.

2.2   Installation versions Citrix terminal server

SOFT-SOLUTIONS can also be operated on terminal servers in connection with Citrix.
The use of Citrix gives rise to additional licence costs.

The same minimum requirements apply for this use as described in *Chapter 2.1 – Installation versions Windows terminal server*.

3   File system

Only NTFS and ReFS file systems are supported on Windows systems.

4   Use of virus scanners

If virus scanners are used on workstations and database servers, the corresponding exceptions (on access and on demand) should be set up on the database files and the programme files as well as the deploy directories of SOFT-SOLUTIONS.

5   Data backup

We recommend regular backup of the SOFT-SOLUTIONS database on an external medium. When using the backup tool, correct configuration must be taken into account.

i Please note that without corresponding support of the backup tools, databases cannot be secured as part of ongoing operations.

6   soft-welcome

6.1   soft-welcome in the client-server network

In order to present your service appointments and your individual marketing actions, you require an appropriately equipped workstation. The same system requirements apply as described in *Chapter 1.2 – Client*.

> **i** The PC **must** be integrated into your network. If a computer is utilised for soft-welcome, this can **not** be used as a workstation simultaneously.

Only one welcome-show can be launched per workstation. If you wish to present various shows on various devices, you will require your own PC.

If you wish to use an alternative display device/TV for presentation purposes, we would recommend the following hardware components:

- a suitable graphics card with suitable connection to the desired display device/TV
- Display device/TV in a suitable size

The display device/TV is linked with the PC via a compatible connection. The distance between the PC and the display device/TV should not exceed 5 metres.

For presentations on wide screens, you will require a graphic card which supports the resolution of the display device/TV. For questions on this, please contact your hardware supplier.

6.2   soft-welcome when using a terminal server

If you use a terminal server (Windows terminal server/Citrix), soft-welcome is nonetheless installed locally on the PC. The same minimum requirements apply in this case as previously described. In addition, the PC must be integrated into your network.

> **i** Use of soft-welcome direct is **not** supported on the terminal server/Citrix.

7 soft-communicator

7.1 Telephony

Please note that installation and configuration of the telephone components must be safeguarded by the client prior to the installation of soft-communicator (e.g. installation and configuration of the TAPI driver of the telephone equipment, etc.).

The soft-communicator can only use telephony functions which are also provided and supported by the customer's TAPI driver. soft-nrg Development GmbH is able to check in advance which functions are available through the installed TAPI drivers.

Option 1 – 3rd party drivers on one server (preferred)

A TAPI driver must be installed and fully configured on a TAPI driver which has a connection to the telephony system. The driver must support Microsoft TAPI V2.0 Standard as a minimum.

Option 2 – 1st party driver on the local workstation

A TAPI driver must be installed and fully configured on every local workstation which has a connection to the telephone system. The driver must support Microsoft TAPI V2.0 Standard as a minimum.

With this option, an additional SOFT-SOLUTIONS service must be installed on every workstation.

Servers

With both options, SOFT-SOLUTIONS services must be set up on a server.
The workstations on which SOFT-SOLUTIONS are installed communicate within the network with the corresponding service on the server.

7.2 Messages

In order to use messages, the SOFT-SOLUTIONS Client requires a connection to the database.

7.3 Email

For the transfer of email addresses from SOFT-SOLUTIONS, an email programme must be installed on the local computer and be fully configured.

8   soft-pad

For direct acceptance at vehicle level, soft-pad is available to you.

The following device characteristics are supported:

- Browser
  - Chrome (recommended)
  - Safari

- Display size
  - from 7"

- Display format
  - 4:3
  - 16:9
  - 16:10

- Camera
  - Resolution with a minimum of 3 megapixels

- Network connection
  - WLAN 802.11g or higher

- Operating systems/hardware
  - iPad from 2nd generation onwards with iOS 9.2
  - Windows 8.1 or higher
  - Android 4.0 or higher

Please also note the instructions in *Chapter 1.3 – Webserver*.

9 soft-messenger

With soft-messenger, messages can be sent outward from SOFT-SOLUTIONS. For this, a functioning internet connection is required from every workstation. Transmission is secured thanks to HTTPS protocol. For access to the soft-messenger portal, we recommend using the current version of Google Chrome or Mozilla Firefox.

9.1 Coding (SMS)

All messages are sent in GSM 03.38 (7-bit) standard alphabet. In this coding, up to 160 characters can be transmitted. If a different character is transmitted in the message, the application will code the entire message in Unicode UCS-2 (16-bit). For this, up to 70 characters can be transmitted.

You will find further information on *https://de.wikipedia.org/wiki/GSM_03.38*.

10 soft-net

A secured connection to the local SOFT-SOLUTION database is created via a SOFT-SOLUTIONS service with the soft-net portal. Please note the information contained in *Chapter 1.3 – Webserver*.

11 Online support

In order to call upon online support, internet access from every workstation is required.

12 Firewall and Proxy

Please note that it may be necessary to carry out corresponding configurations to your firewall and/or proxy server for the following URLs and the associated pages (White List/outgoing):

Permit outgoing connections on

- *.soft-nrg-portal.de/* with 136.243.160.32/28 and
- *.soft-nrg.com/* with 136.243.160.32/28 via TCP Port 443 (HTTPS).

When using a proxy server, we recommend using a separate user for authentication purposes.

SOFT-SOLUTIONS

System requirements versions 5.18., 6.18., 7.18.

Fax **+49 89 452280-531**
Email **vertrieb@soft-nrg.de**

Return form to confirm the system requirements

Retailer	
Name	
Location	
Contact person	
Telephone	
Email	
DMS (incl. Database system)	
Contact person IT	external internal
Name	
Telephone	
Email	

Prior to implementation, ensure that the devices on which the software is to be installed (e.g. client, server) is technically compatible with the aforementioned system requirements. If installation fails due to a lack of technical compatibility and if services have been provided by soft-nrg Development GmbH, this does not release you from obligation to pay the agreed remuneration.

I/we fulfil and confirm the aforementioned system requirements.

yes   no

Comment/remark	

Date   Signature

Please return this form to us signed by fax. If sending us the form by email, please enter your full name in the signature field (electronically confirmed system requirements are valid without written signature).

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