

System and Dialogue Kaba exos 9300

Installation Manual

IM_Kabaexos9300-System-and-Dialog-R421_202112_en For internal use only

EN

dormakaba 🞽

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1 Regarding this document

This section contains information about properly using this document.

1.1 Validity

This document describes the product:

Product name:	Kaba exos 9300
Release:	As of 4.2.1

1.2 Audience

This document is solely intended for specialist personnel who have been trained by dormakaba in the release of Kaba exos 9300 used.

Specialist knowledge of the following is also required:

- the operating system used
- database products used
- web technologies (IIS and browser)
- the network technology used
- information security (e.g. certificates)
- the other dormakaba products used (e.g. b-comm ERP, evolo components)

1.3 Contents and purpose

This document describes the installation procedure for Kaba exos 9300.

Installation is described based on the recommended system structure (see chapters 'System structure [> 2.2]' and 'Authentication methods [> 2.3]') with Windows authentication and an SQL Server database.

1.4 Document availability

Additional documentation is available on the dormakaba website. The manuals can be found in a protected area (extranet). They can be accessed using the user account of trained specialists or a temporary user account.

https://www.dormakaba.com/extranet-emea-en/login

1.5 Supplementary documentation

Configuration manual

CM_Kabaexos9300-MS-SQL-Database

CM_Kabaexos9300-Database-Update

Reference manual

RM_Kabaexos9300-MSI

RM_Kabaexos9300-System-and-Settings

RM_Kabaexos9300-Web-Applications

RM_Kabaexos9300-RabbitMQ

RM_Kabaexos9300-Integration

Planning guideline

PG_Kabaexos9300-System

Other documents

Online help full dialogue

Online help web application

Kabaexos9300-Security

1.6 Overview of Kaba exos documentation

Planning guideline (PG)		Configuration manual (CM)		Reference manual (RM)	
Sy	stem			 	
Sy	ystem	IM System & Dialog	Cabinet Lock	Web Applications	System & Settings
Secur	rity White Paper	Translation	Online Cabinet Lock	Integration	Logbooks
		Access manager 92 xx	ARIOS*	Reporting	MSI
				REST API	RabbitMQ
Date	abases	Database Update		Database	
		MS SQL Database			
Inte	erfaces	Interface 90 10	TBS Terminal	LDAP	Push API
		CC1 Interface*		b-comm ERP exos Interface	Datapoint Server
				CC1 Interface*	OPC
Acces	s control			 	
W	ireless	Badge Input Badge Output	CardLink		
		Nedap	OSS-SO	1	
		Alarm Zones	Wireless	1 1 1	
		LoxTop Depot Control	Lift Control		
Integrat comp	tion online conents	B-web 9300*		Communication Access Manager*	
M	1edia	 ! !		+	
Media	Extensions	Media Definitions	Mobile Access	LEGIC advant Media Definition	Dual Chip Media*
Mobi	le Access	KabaCard	Master Key System		
Medie	a LEGIC*	Kaba Media Manager*	Duplicate Media Detection*		
Medic Al	a MIFARE RIOS*			* Documents older	than release 4.0.0

1.7 Change log

The most important changes to the last version of this document are listed as follows:

File name	Brief description
IM_Kabaexos9300-System-and-Dialog- R421_202112	First edition for the release

1.8 Abbreviations

Abbreviation/name	Meaning
AS	Application server
СН	Communication hub
DB	Database
	composite abbreviations: AS-DB, CH-DB
IIS	Internet Information Services
Web service	Microsoft service platform for PCs and web servers
Kaba exos	Kaba exos 9300
SSO	Single Sign-On
	is used as a synonym for 'Windows authentication'.

1.9 Instructions

Structure and symbols of the instructions are illustrated in the following example:

- ✓ Prerequisite
- 1. Step 1
 - ⇒ Interim result
- 2. Step 2
- ⇔ Result

1.10 Symbols used

The following symbols will be used in this document to identify important information and instructions:



NOTICE

Instructions on the correct usage of the software.

Failure to comply with these instructions may result in malfunctions, system crashes or data loss.

i

Tips and useful information. These help you to make best use of the product and its functions.

2 System description

2.1 Overview

Kaba exos is based on the client-server principle and consists of the following important parts:

Application server (AS)

The application server contains the application logic and provides data to the communication hubs for the connected devices. There is only 1 application server for each system. The application service and the web service (IIS) run on the application server.

Application service database (AS-DB)

This database (SQL or Oracle) is used by the application service and contains the entire system data.

Communication hub (CH)

The communication hub consists of individual processes that are responsible for the communication with the door/access managers (Kaba exos AMC, access manager 92 00, etc.). At least 1 communication hub is required for each system. Each communication hub saves its own data locally. This data is continuously reconciled with the application service database.

Interactive workstation

The interactive workstation consists of individual sub-programs that can be started depending on the user right of a person to carry out different administrative works such as registering new devices or allocation of access rights.

Additional functionalities (e.g. staff data management) are available in the web applications. You can also access the web applications from the interactive workstation.

The data are saved in the application service database.

Detailed information about the system structure can be found in the document 'PG_Kabaexos9300-System'.

2.2 System structure

This document describes the installation procedure for Kaba exos based on the following recommended system structure:



The following table shows which installation file is required for which component. The installation procedure itself is described in the 'Installation' chapter.

Component	Installation files (Features)
Application server (AS)	• Service.msi (Application service & exos API)
	• WebApps.msi
Communication hub (CH)	ServiceCH.msi (Communication hub)
	• DatabaseCH.msi (Communication hub database)
Application service database (AS-DB)	• Database.msi (Application service database)
Interactive workstation	• Client.msi

2.3 Authentication methods

In Kaba exos, different authentication methods can be used at 2 points, namely:

- 1 Services and client login into the database
- 2 User login into Kaba exos

The authentication method recommended by dormakaba for the respective point is described below. The installation default values meet these recommendations.

Ultimately, it is the RMO's or the partner's responsibility to select the authentication method that best meets the customer's safety requirements and to install the system accordingly.

Services and client login into the database

For services (application service & communication hub), we recommend configuring access to the application service database via Windows authentication. For Oracle, only SQL Server authentication is released.

Clients' access to the application service database is per default configured via SQL Server authentication. It is possible to configure Windows authentication with an SQL server. However, this is not recommended, as the registered Windows user essentially has access to the application service database without needing to know a password. This must be prevented with relevant counter-measures.

User login into Kaba exos

Logging into Kaba exos (client & web applications) is done by entering a user name and password as standard. But it is also possible to activate Windows authentication for the login process. If Windows authentication is activated, the user only has to authenticate themselves using a password when logging into their Windows user account. The login to Kaba exos via the login dialog is omitted.

3 Installation

This chapter describes the installation of the product.

3.1 Requirements

General

- Prior to installing Kaba exos, all other Windows users must be logged out so that all registry entries can be created correctly.
- Kaba exos is a 32-bit application. 32-bit applications are installed in the 'C:\Program Files (x86)' directory by default.

Tools

The following tools are needed for installing Kaba exos:



The required tools are supplied with Kaba exos in the 'Addons' directory (exception: Erlang and RabbitMQ).

The installation wizard refers to the tools required at the appropriate point. Compatible versions are also listed in the Release Overview Kaba exos 9300 of the respective release.

Tool	File name	Component
Microsoft .NET Core hosting bundle	dotnet-hosting win.exe	Application server
Microsoft .NET Framework	NDPx86-x64-Al- IOS-ENU.exe	on all components
Microsoft Internet Information Services (IIS)	Needs to be activ- ated.	Application server
Erlang OTP runtime	otp_win64exe	Application server
Attention: If the 'Erlang OTP runtime' tool is uninstalled, it is essential to perform a re- start before installing it again.		Communication hub
RabbitMQ	rabbitmq-	Application server
(see the document 'RM_Kabaexos9300-Rab- bitMQ')	serverexe	Communication hub
Attention: The 'Erlang OTP runtime' tool must be installed before the 'RabbitMQ' tool, as otherwise it is possible for online versions to be downloaded that may not be compat- ible with Kaba exos.		
Microsoft SQL Server	SQLServerexe	Application server
(see the document 'CM_Kabaexos9300- MSSQL-DBMS')		Communication hub
Microsoft Visual C++ Redistributable	32 bit: vc_re- dist.x86.exe	on all components
	64 bit: vc_re- dist.x64.exe	

3.2 Installing databases

The following description applies to a new installation. The procedure for updating databases is described in the document 'CM_Kabaexos9300-Database-Update'.

3.2.1 Installing the application service database

1. Launch the 'Database.msi' file.



- 2. Select 'Next'.
- 3. Accept the licence agreement.

Licence information You must agree with the licence agreement bel	ow to proceed.
1. Scope of application	^
1.1. This EULA (End User Licence Agreement) is Customer, either as a natural or legal person, and as "domakaba" and contains provisions concen- connection with the access systems sold by dom Systems"). The domakaba software is provided t also includes licensed third-party components that together with the domakaba software under the t	a legally binding agreement between the domakaba Schweiz AG (hereinafter referred to ning the use of Kaba exos 3000 software in akaba and installed by the Customer ("Host of the Customer for contractual use. The software rare licensed to the Customer in bundles ems of this Agreement.
1.2. The software, all its further developments, ad updates and upgrades, together with the docume regarded in the following as constituting the "Proc of this Agreement, the "Customer" ('you'') means specialist or distribution partners provided with the	aptations and innovations, such as patches, ntation outlined in Clause 1.6, shall together be luct" (also called "Software"). For the purposes all end users, dormakaba customers and Product in order to use it for installing, managing v
	I accept the licence agreement: 🛛 🗹
	< Back Next > Cancel

- 4. Select 'Next'.
- 5. Database server type: Select the database server type used.
 Feature: Select 'Install Application Service Database'.

Please select which feat	ures you would like to install.
Feature selection	
Database server type:	SQL Server 🗸
Feature:	Install Application Service database \sim
catare accomption	
Installs an instance of an A required.	Application Service Database. Just one Application Service Database
Installs an instance of an A required. MPORTANT: The A since	Application Service Database. Just one Application Service Databas pplication Service database cannot be used for the Communication the schema is different.

- 6. Select 'Next'.
- Database server name: Enter the name of the server on which the database is installed, including the corresponding instance if necessary (e.g.: DatabaseServer\DatabaseInstance).

- Keep 'Windows authentication' activated so that the user does not have to enter their user name/password when installing the database. This way, the user will be logged in automatically using their Windows user account data.

To use SQL Server authentication: Deactivate 'Windows authentication' and enter the database user to be used for the installation under 'Install user'.

atabase creation inform	nation		
Database server name:			
atabase installation us	er		
Windows authentication:	\checkmark		
Install user:	sa		
			_

- 8. Select 'Next'.
- Select the directories under which the database scripts and files should be saved.
 Note: To install in 'C:\Program Files', the paths in the 'Properties.ini' file must be adjusted during installation.

elect temporary unectory for script files (vinexosbe	MO03)
C:\Temp\Kaba Exos9300\DatabaseSetup_	Browse
elect installation directories (Server 3 [DatabaseServ	erName])
Select Database directory	
C:\Kaba\Exos9300\Database\	B <u>r</u> owse
Select Transaction log directory	
C:\Kaba\Exos9300\TransactionLog\	B <u>r</u> owse
Select Backup directory	
Select Dackup directory	

- 10. Select 'Next'.
- 11. Database name: Enter the database name.
 - Use default settings: Deactivate the checkbox to adjust the database settings:
 Database login (Client): Keep 'Windows authentication' disabled.

Attention: If the checkbox is activated, the database connection is authorized from the full dialogue via Windows authentication. When using Windows authentication as authentication of the full dialog for the database, the registered Windows user generally has access to the Kaba exos database without requiring any password. This must be prevented with relevant counter-measures.

Attention: The user logins must be registered on the SQL Server. Furthermore, the users must be authorized for the roles 'ExosDialog' and 'ExosDialogDotNet' on the SQL Server. - Backup/maintenance jobs: Creates the backup and maintenance jobs. For SQL Server

Express, backup jobs can only be created via the Task Scheduler.

- Recovery mode: Database recovery mode.

- Database: Initial size of the database in MB, maximum size of the database in MB, database increase in %.

- Transaction log: Initial size of the transaction log in MB, maximum size of the transaction log in MB, transaction log increase in %.

Define a database name					
Database name:	Exos9300				
Use default settings:					
Database settings					
Database login (Client):	Windows authentication				
Backup/maintenance jobs:	\checkmark				
Recovery mode:	Full		~		
	Size (MB)	Max size (MB)	Growth (%)		
Database:	500	4000	20		
Transaction log:	100	4000	20		

- 12. Select 'Next'.
- 13. AS/exos API host name: Enter the name of the server on which the application service and the exos API are installed.

- Save duration of logs and other data (in days): If desired, adjust the default values for saving the logbooks and other data.

AS hostna	me:				
exos API h	ostname:				1
ave durat	ion of logs an	d other data (in d	ays)		
System	90	Alarm	90	Access	90
Audit	90	Time	90	Badge	3650
Error	90	Depot	90	Parking	90
Mail	90	Visit	180	Upcoming visit	14
/isitor	900	Visitor log	900		

- 14. Select 'Next'.
- 15. Click 'Install' to install the database.

Ready to in	stall				
Click 'Insta 'Cancel' to	l' to begin installa exit the wizard.	tion. Click 'Back' to	re-enter the ins	tallation information	or click
Automatica	illy run batch file:				
			< <u>B</u> ack	V Install	Cancel

- \Rightarrow The files required for installation are created and copied into the temporary directory.
- ⇒ If 'Automatically run batch file' is not enabled, the installation files are not executed automatically. Detailed information can be found in the document 'RM_Kabaexos9300-System-and-Settings'.

16. Check the setup settings. In case of SQL Server authentication, enter the password for the database administrator (e.g. for 'sa') and press ENTER.





- 18. Once setup is complete, press any key.
 - \Rightarrow The 'Application Service Database' is installed.
 - Any error messages have been logged and are displayed automatically in the '%Temp%\Kaba Exos9300\DatabaseSetup_x.x.x\SQLServer\Setup\Log' directory.
- 19. Click 'Finish' to end the installation.
- 20. Check if the backup and maintenance jobs have been set up and if the database recovery function works.

When using SQL Server, the logins and users for the database must be created manually (in the case of Windows authentication) or based on scripts (in the case of SQL server authentication, script 'RECREATE_AS_v4.1.0.sql'). For detailed information see document 'CM_Kabaexos9300-MSSQL-DBMS'.

The database user for the communication hub must be created manually or based on scripts in the application service database (see also chapter 'Installing the communication hub $[\blacktriangleright 3.3.2]$ ').

3.2.2 Installing the communication hub database



The process for installing the communication hub (CH) database is almost identical to that for installing the application service database [\triangleright 3.2.1].

The communication hub (CH) database can only be installed on an SQL server. This is not possible on an Oracle server.

1.	Launch the 'DatabaseCH.msi' file.
	Welcome to the Kaba exos 9300 CH Database Installation
	It is strongly recommended that you exit all Windows programs before running this setup program.
	Click 'Cancel to quit the setup program, then close any programs you have running. Click 'Next' to continue the installation.
	WARNING: This program is protected by copyright law and international treaties.
	Unauthorised reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
	< Back Next > Cancel

- 2. Select 'Next'.
 - \Rightarrow The licence agreement is displayed.
- 3. Accept the licence agreement.

Licence information You must agree with the licence agreement below to proceed.	
1. Scope of application	^
1.1. This EULA (End User Licence Agreement) is a legally binding agreement between the Customer, either as a natural or legal person, and domakaba Schweiz AG (hereinafter referred to as "domakaba") and contains provisions concerning the use of Kaba exos 9300 software in connection with the access systems sold by domakaba and installed by the Customer ("Host Systems"). The domakaba software is provided to the Customer for contractual use. The software also includes licensed third-party components that are licensed to the Customer in bundles together with the domakaba software under the terms of this Agreement.	
1.2. The software, all its further developments, adaptations and innovations, such as patches, updates and upgrades, together with the documentation outlined in Clause 1.6, shall together be regarded in the following as constituting the "Product" (also called "Software"). For the purposes of this Agreement, the "Customer" ("you") means all end users, domnakaba customers and specialist or distribution partners provided with the Product in order to use it for installing, managing	*
I accept the licence agreement:	
< Back Next > Cancel	

- 4. Select 'Next'.
 - \Rightarrow The database connection settings are displayed.
- 5. Adjust the database connection settings as needed:
 - Database server type: Select the database server type used.

- Database server name: Enter the name of the server on which the database is installed, including the corresponding instance if necessary (for example:

DatabaseServer\DatabaseInstance).

- Database name: Enter the database name.

- Use default creation settings: Clear the checkbox to adjust the default database settings (backup jobs, recovery mode, database size, and log files).

- Keep 'Windows authentication' activated so that the user does not have to enter their user name/password when installing the database. This way, the user will be logged in automatically using their Windows user account data.

To use SQL Server authentication: Deactivate 'Windows authentication' and enter the database user to be used for the installation under 'Install user'.

atabase creation informatio	n
Database server type:	SQL Server Express \sim
Database server name:	
Database name:	Exos9300CH
Use default creation settings:	
atabase installation user	
Windows authentication:	
Install user:	sa

- 6. Select 'Next'.
 - \Rightarrow The installation paths are displayed.
- 7. Adjust the installation paths if necessary.

elect temporary direc	ory for script files (
C:\Users\steigede\AppD	ata\Local\Temp\Kaba Exos9300\DatabaseSet	upCH_4. B <u>r</u> owse
elect installation direc	tories (localhost)	
Select Database director	/	
C:\Kaba\Exos9300\Datal	pasel	Browse
Select Transaction log di	ectory	
C:\Kaba\Exos9300\Trans	sactionLog\	B <u>r</u> owse
Select Backup directory		
C:\Kaba\Exos9300\Back	up/	Browse

- 8. Select 'Next'.
- 9. Click 'Install' to install the database.

Ready to install
Click 'Install' to begin installation. Click 'Back' to re-enter the installation information or click 'Cancel' to exit the wizard.
Automatically run batch file: 🗹
< Back Cancel

- \Rightarrow The files required for installation are created and copied into the temporary directory.
- ⇒ If the checkbox 'Automatically run batch file' is not activated, the installation files are not executed automatically. Detailed information can be found in the document 'RM_Kabaexos9300-System-and-Settings'.

10. Check the setup settings. In case of SQL Server authentication, enter the password for the database administrator (e.g. for 'sa') and press ENTER.



12. Once setup is complete, press any key.

to contin

⇒ 'Communication Hub Database' has been installed.

Any existing database Exos9300 will be deleted fff nt to generate the database Exos9300 Version 4100 build 280?

- Any error messages have been logged and are displayed automatically in the '%Temp%\Kaba Exos9300\DatabaseSetup_x.x.x\SQLServer\Setup\Log' directory.
- 13. Click 'Finish' to end the installation.
- 14. Check if the backup and maintenance jobs have been set up and if the database recovery function works.

3.2.3 Logins, server roles and user mappings for databases

3.2.3.1 Application service database

When installing the application service database, no database login is created by default. It must be created manually in MS SQL Server Management Studio or using a script.

In the case of SQL Server authentication, the application service user must comply with a specified naming structure: [Database name]AS (e.g. 'Exos9300AS').

The application service user requires authorization for the roles 'ExosServices' and 'ExosServicesEntity'.



In addition, the application service user requires the 'Impersonate' authorization ('Assume identity') for the reporting user.



A separate database user is required for the communication hub to access the application service database (e.g. 'Exos9300F33') for SQL Server authentication. They require the role 'ExosCommHub'. The database user can access the database via SQL Server authentication or Windows authentication. The script 'RECREATE_USER_Fxx_v4.1.0.sql' can be used as support.



3.2.3.1.1 'View server state' permission

The application service user must be assigned the necessary permission ('View server state') via the database properties.

erver Management Studio							
Debug Tools Window Co	mmunity Help						
ji Lisi Lizi La 🗇 Lizi Lisi							
•	Ψ×						
🗼 = 🝸 🛃 🔬							
//O03\SQLEXPRESS (SQL Server 10.0	.1600 -						
Server Properties - VINEXOSD	EMO03/SQLEXPRESS						
Select a page	🔄 Script 🔻 📑 Help						
Processors					Search	Search	
Security				τ			
		0-10-1-00		Type		- 1	
Patabase Settings		Certricate##		Login			
	BUILTIN Osers			Login			
	Excs5300_BeckiCommon			Login			
	Even9200AS			Login		- 1	
	ExcessionAS			Login			
	Exos9300Common			Login		-	
				Login		-11	
		TABLECC		Login		-11	
		EXFNE35		Login			
				Login		-	
	Permissions for Exos9300AS:						
	Explicit Effective						
Connection	Permission	Grantor	Grant	With Grant	Deny		
Server:	Create endpoint	VMExosDemo03\Kaba					
VMEXOSDEMO03\SQLEXPRES!	Create trace event notification	VMExosDemo03\Kaba					
Connection:	External access assembly	VMExosDemo03\Kaba					
VMExosDemo03\Kaba	Shutdown	VMExosDemo03\Kaba					
View connection properties	Unsafe assembly	VMExosDemo03\Kaba					
	View any database	VMExosDemo03\Kaba					
Drogroop	View any definition	VMExosDemo03\Kaba					
Flogless	VIEW AITY DETITION					100	
Ready	View server state	sa	v			-	
Ready	View server state	sa VMExosDemo03\Kaba	V				
Ready	View server state View server state	sa VMExosDemo03\Kaba				Ţ	
Ready	View server state	sa VMExosDemo03\Kaba					
	Debug Tools Window Co Debug Tools Window Co Monoscience Connection Connection Processors Connections Database Settings Advanced Permissions Connection Server: VMEXOSDEM003\SQLEXPRESS Connection: VMExoSDem003\SqLexPRESS Connection: VMExoSDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: VMExosDem003\SqLexPRESS Connection: Co	Debug Tools Window Community Help Debug Tools Window Common Help Debug Tools Solutions Debug Tools Window Common Help Debug Tools Window Common Help Exos9300_Beck/Common Exos9300AS Exos9300Web NT AUTHORITY-SYSTEM NT SERVICE-MSSQLSQLE VMExosDem003/Kaba Pemission Create endpoint Create endpoint Create race event notification Extract race event notification Extract seemely Shudown Unsafe assembly	Debug Tools Window Community Help Debug Tools Vinters Dotabase Settings Debug Security Connections Debug Tools VMEXOSDEMOO3\SQLEXPRESS Debug General Memoy Processors Security Connections Debug Advanced Permissions Logins or roles: Debug Security Connections Server: VMEXoSDEMO03\SQLEXPRESS Connection: Server: VMEXOSDEMO03\SQLEXPRESS Connection: YMEXOSDEMO03\SQLEXPRESS Connection: YMEXOSDEMO03\SQLEXPRESS WExosDemo03\Kaba Permission Grantor Create endpoint VMExosDemo03\Kaba Permission Grantor Create race event notification VMExosDemo03\Kaba WexosDemo03\Kaba Shudown VMExosDemo03\Kaba WexosDemo03\Kaba VMExosDemo03\Kaba	Debug Tools Window Community Help Image: I	Debug Tools Window Community Help Debug Tools Window Community Help Image: Server Properties - VMEXOSDEMO03\SQLEXPRESS Select a page General Image: Server Properties - VMEXOSDEMO03\SQLEXPRESS Select a page Image: Server Properties - VMEXOSDEMO03\SQLEXPRESS Select a page Image: Server Properties - VMEXOSDEMO03\SQLEXPRESS Select a page Image: Server Properties - VMEXOSDEMO03\SQLEXPRESS Image: Database Settings Image: Advanced Image: Permissions Image: Database Settings Image: Advanced Image: Permissions Image: Database Settings Image: Data	Debug Tools Window Community Help Image: I	

3.2.3.2 Communication hub database

When installing the communication hub database, no database login is created by default. Database access is enabled by default via the Windows user 'NT authority\system'. The database user needs to have the database role 'db_owner'.



3.3 Installing services

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All necessary tools [> 3.1] must be installed before the services are installed.

3.3.1 Installing the application service

1. Launch the 'Service.msi' file.

Welcome to the Kaba exos 9300 AS Services Installation
It is strongly recommended that you exit all Windows programs before running this setup program.
Click 'Cancel' to quit the setup program, then close any programs you have running. Click 'Next' to continue the installation.
WARNING: This program is protected by copyright law and international treaties.
Unauthorised reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back Next > Cancel

3. Accept the licence agreement.

Licence information

You must agree with the licence agreement below to proceed.

1. Scope of application

1.1. This EULA (End User Licence Agreement) is a legally binding agreement between the Customer, either as a natural or legal person, and domakaba Schweiz AG (hereinafter referred to as "domakaba") and contains provisions concerning the use of Kaba exos 9300 software in connection with the access systems sold by domakaba and installed by the Customer ("Host Systems"). The domakaba software is provided to the Customer for contractual use. The software also includes licensed third-party components that are licensed to the Customer in bundles together with the domakaba software under the terms of this Agreement. 1.2. The software, all its further developments, adaptations and innovations, such as patches, updates and upgrades, together with the documentation outlined in Clause 1.6, shall together be regarded in the following as constituting the "Product" (also called "Software"). For the purposes of this Agreement, the "Customer" ("you") means all end users, domakaba customers and specialist or distribution patners provided with the Product in order to use it for installing, managing v I accept the licence agreement:

< <u>B</u>ack

- 4. Select 'Next'.
- 5. Leave 'Application Service' and 'exos API' activated; the remaining features are optional.

Cancel

<u>N</u>ext >

Please select which features you would like to install.
Feature selection
Kaba exos 9300 AS Services Application Service exos API Service Tools
Feature description Installs the Kaba exos 9300 AS Services.
This feature requires 497 KB on your hard drive. It has 3 of 3 subfeatures selected. The subfeatures require 280 MB on your hard drive.
< Back Next > Cancel

- 6. Select 'Next'.
 - \Rightarrow The required programs and their statuses are displayed.

Prerequisite		Detected version
🖉 Windows		Hollow - 1 (20) (9)
Microsoft .NET Framework		MP 10.2
Microsoft .NET Core Hosting		1.1.10
Microsoft Internet Information Service	es (IIS)	
Erlang OTP runtime		11.1.4
RabbitMQ		10.00
Previously installed version		
egend:		
🗸 Supported version installed	🔥 Unsupported	version installed
🗙 Prerequisite is completely missing	Prerequisite	is not required

8. Select the corresponding licence file.

Licence info The follow	ormation ing information is used by Kaba exos	9300 AS Se	rvices.	
Licence file				
Name :	Second Add			
Place :	Normany.			
v				
Select licen	ce file			
C:\Users	Desktop\Exos9300License.txt			B <u>r</u> owse
	[< <u>B</u> ack	<u>N</u> ext >	Cancel

- 9. Select 'Next'.
- 10. Select the installation directories.

The following information is used by Kaba exos 9300 AS Service Select services installation directory	S.
C:\Program Files (x86)\Kaba\Exos9300\Services\	B <u>r</u> owse
Select exos API installation directory C:\inetpub\www.root\ExosApi\	B <u>r</u> owse
Select exos API Login installation directory C:\inetpub\wwwroot\ExosApiLogin\	B <u>r</u> owse
< <u>B</u> ack	Next > Cancel

- 11. Select 'Next'.
- 12. AS/exos API host name: Enter the name of the server on which the application service and the exos API should be installed.

- IIS API website name/folder: If the API applications are not to be installed in the IIS under the 'default website', specify the name and/or directory of the website.
- User name/password: Enter a domain user with local administrator rights. For SQL server, additional database authorizations must also be granted to this user.
Note: If the fields have been left empty, the Windows user 'NT AUTHORITY\SYSTEM

[▶ 3.2.3]' is used for the services.

Common service configuration

	The following	in formation	is	used	by	Kaba	exos	9300	Services
--	---------------	--------------	----	------	----	------	------	------	----------

AS hostname:		
exos API hostname:		
IIS API Web Site Name:	Default Web Site	
IIS API Web Site Folder:	C:\inetpub\wwwroot\	Browse
Optional: Specify service u	ser credentials	
User Name:		Browse
Password:		
	< Back Next >	Cancel

- 14. Database server type: Select the database server type used.
 - Database server name: Enter the name of the server on which the database is installed, including the corresponding instance if necessary (for example: DatabaseServer\DatabaseInstance).
 - Database login (Client): Keep 'Windows authentication' disabled (same as for

installation of the application service database [\triangleright 3.2.1]).

Attention: If the checkbox is activated, the database connection is authorized from the full dialogue via Windows authentication. When using Windows authentication as authentication of the full dialog for the database, the registered Windows user generally has access to the Kaba exos database without requiring any password. This must be prevented with relevant counter-measures.

Attention: The user logins must be registered on the SQL Server. Furthermore, the users must be authorized for the roles 'ExosDialog' and 'ExosDialogDotNet' on the SQL Server.

	Jatabase server name:
Exos9300	Database name:
Windows authenticati	Database login (Client):

- 15. Select 'Next'.
- 16. Select 'Install' to install the application service.

Ready to install
Click 'Install' to begin installation. This will install Kaba exos 9300 AS Services on your machine. Are you sure you want to continue? Click 'Back' to re-enter the installation information or click 'Cancel' to exit the wizard.
< Back Cancel

- ⇒ Installation starts.
- 17. Click 'Finish' to end the installation.
- \Rightarrow The application service is installed.

3.3.1.1 Application service authorization

The application service requires the following authorization:

Services (Local)					
Kaba exos 9300 Application Service	Name	Description	Status	Startup Type	Log On As
an a anter anter	🐫 Kaba exos 9300 Ap	Kaba exos 9	Started	Automatic	Local System
Stop the service Restart the service	🔍 Kaba exos 9300 Co	Kaba exos 9	Started	Automatic	Local System

The application	service requires	the following	database	authorization:

Select a page General	Script	🕶 😮 Help			
Server RolesUser Mapping	Users ma	ppe <u>d</u> to this login:			
Securables	Map	Database	User	Default Schema	/
Status		Exos9300_V402_upd			
		Exos9300_V4070	NT AUTHORITY\SYS		
		tempdb			
Connection					
Connection:		dladmin			
View connection properties Y [₩] View connection properties Progress	db_d db_d db_d db_d db_o db_o db_s Exos	dladmin enydatareader enydatawriter wner ecurityadmin Dialog Dialog DotNet Reporting			^

3.3.1.2 'View server state' permission

The application service user must be assigned the necessary permission ('View server state') via the database properties.

Microsoft SQL Se	erver Management Studio						
File Edit View	Debug Tools Window Co	mmunity Help					
일 New Query 🛛) 🗈 🖻 🖬 🕘 🌉 🚬						
Object Explorer	•	μ x					
Connect 🕶 🛛 📑 📑	= T 🛃 🍒						
Image:	1003\SQLEXPRESS (SQL Server 10.0	.1600 -					
⊕ Database ⊕ Security ⊕ O	Server Properties - VMEXOSD	EMO03\SQLEXPRESS					
🕀 🧾 Server Ot 🕀 🚞 Replicatio	General	Script 🔻 🚺 Help					
🕀 🚞 Manager	Processors	Logins or roles:				Searc	:h
	Connections	Name			Туре		-
	Database Settings	##MS_SQLResourceSigning	Certificate##		Login		
	Advanced	BUILTIN\Users			Login		
	Permissions	Exos9300_BeckiCommon			Login		
		Exos9300 BeckiWeb			Login		
		Exos9300AS			Login		
		Exos9300Common			Login		
		Exos9300Web			Login		=
		NT AUTHORITY\SYSTEM			Login		_
		NT SERVICE\MSSQL\$SQL	EXPRESS		Login		
		VMExosDemo03\Kaba			Login		-
		Permissions for Exos9300AS:					
		Explicit Effective					
	Connection	Permission	Grantor	Grant	With Grant	Deny	
	Server:	Create endpoint	VMExosDemo03\Kaba				
	VMEXOSDEMO03\SQLEXPRESS	Create trace event notification	VMExosDemo03\Kaba				
	Connection:	External access assembly	VMExosDemo03\Kaba				
	VMExosDemo03\Kaba	Shutdown	VMExosDemo03\Kaba				
	View connection properties	Unsafe assembly	VMExosDemo03\Kaba				
		View any database	VMExosDemo03\Kaba				_
	Progress	View any definition	VMExosDemo03\Kaba				-
	Ready	View server state	sa	v			=
	No. of	View server state	VMExosDemo03\Kaba				-
					ОК	Cano	el

3.3.1.3 IIS authorization



NOTICE

If the application server database and the web applications are installed on different servers (see chapter 'System structure [\triangleright 2.2]'), a user who has the required authorization for the AS-DB must be entered in the 'Identity' field. It is recommended to enter the user who will be used to execute the services.

The IIS requires the following authorization:

~	(General)		^
	.NET CLR Version	v4.0	
	Enable 32-Bit Applications	False	
	Managed Pipeline Mode	Integrated	
	Name	DefaultAppPool	
	Queue Length	1000	
	Start Mode	OnDemand	
~	CPU		
	Limit (percent)	0	
	Limit Action	NoAction	
	Limit Interval (minutes)	5	
	Processor Affinity Enabled	False	
	Processor Affinity Mask	4294967295	
	Processor Affinity Mask (64-bit of	4294967295	
~	Process Model		
>	Generate Process Model Event L		
	Identity	ApplicationPoolIdentity	
	Idle Time-out (minutes)	20	
	Idle Time-out Action	Terminate	

The IIS requires the following authorization on the AS-DB:

Select a page		👻 🙆 Hala			
👂 General	El Script	• 🕜 Help			
 Server Roles User Mapping 	Users ma	ppe <u>d</u> to this login:			
Securables	Map	Database	User	Default Schema	^
Status		Exos9300_V402_upd			
		Exos9300_V4070	NT AUTHORITY\SYS		
		tempdb			
Connection					~
Server: localhost Connection:	Database	account enabled for: Exos role membership for: Exos9 dladmin	300_V4070 300_V4070		•
Server: localhost Connection: Y# <u>View connection properties</u>	Database Database db_d db_d db_d db_d db_se Database Database	account enabled for: Exos a role membership for: Exos dladmin enydatareader enydatawriter wner ecurityadmin Dialog Dialog DialogDotNet	300_V4070 300_V4070		^
Server: localhost Connection: v# View connection properties Progress	Database Database db_d db_d db_d db_o db_se Exos Exos Exos	account enabled for: Exos a role membership for: Exos dladmin enydatareader enydatawriter wner ecurityadmin Dialog Dialog DotNet Reporting	300_V4070 300_V4070		^

3.3.1.4 CORS settings for APIs



NOTICE

CORS must only be configured if the web applications that access the APIs run on a different server than the application service.

CORS can be configured for the following API applications using the configuration file:

- ExosAPI (web.config)
- ExosAPILogin (web.config)
- ExosCore (appsettings.json)

Detailed information about CORS can be found under https://en.wikipedia.org/wiki/Crossorigin_resource_sharing.

3.3.2 Installing the communication hub

- \checkmark The application service is already installed on another computer.
- 1. Launch the 'ServiceCH.msi' file.

Welcome to	the Kaba exos 9	300 CH Serv	ices Installatio	n	
lt is strongly program.	recommended that	t you exit all Wir	ndows programs	before running th	nis setup
Click 'Cance 'Next' to cor	I to quit the setup p itinue the installatio	program, then c n.	lose any prograr	ns you have runni	ing. Click
WARNING:	This program is pro	tected by copyr	right law and inte	ernational treaties.	
Unauthorise severe civil under law.	d reproduction or o and criminal penalt	listribution of thi ies, and will be	is program, or ar prosecuted to th	ny portion of it, ma e maximum exten	ly result in t possible
			< <u>B</u> ack	<u>N</u> ext >	Cancel

- 2. Select 'Next'.
- 3. Accept the licence agreement.

1 3	
Licence information	
You must agree with the licence agreement below to proceed.	
1. Scope of application	^
1.1. This EULA (End User Licence Agreement) is a legally binding agreement between the Customer, either as a natural or legal person, and domakaba Schweiz AG (hereinafter referred to as "domakaba") and contains provisions concerning the use of Kaba exos 9300 software in connection with the access systems sold by domakaba and installed by the Customer ("Host Systems"). The domakaba software is provided to the Customer for contractual use. The software also includes licensed thirdparty components that are licensed to the Customer in bundles together with the domakaba software under the terms of this Agreement.	
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I accept the licence agreement:]
< <u>B</u> ack <u>N</u> ext > Cancel	

eq C	ured prerequisites heck if required components are missing on your syste	m
	Prerequisite	Detected version
1	Windows	manuel - 1 1017
1	Microsoft .NET Framework	107
N	Erlang OTP runtime	10.1.4
<u>ì</u>	RabbitMQ ()	10.00
	Previously installed version	ALC: N. 1998

5. Select 'Next'.

Supported version installed

X Prerequisite is completely missing

6. Select the directory under which the communication hub is to be installed.

< Back

A Unsupported version installed

Prerequisite is not required

<u>N</u>ext >

Cancel

				Browse
dianali Canaita an		la máista		
ptional: Specify se	rvice user cred	ientials		Browco
JSer Mame.	1			browse
assword:				

- 7. Select 'Next'.
- 8. Database server type: Select the database server type used.

- Database server name: Enter the name of the server on which the communication hub database is installed, including the corresponding instance if necessary (e.g.: DatabaseServerCH\DatabaseInstance).

	asc
atabase server type:	SQL Server Express \checkmark
atabase server name:	
atabase name:	Exos9300CH

- 9. Select 'Next'.
- 10. Database server type: Select the database server type used.

- Database server name: Enter the name of the server on which the application service database is installed, including the corresponding instance if necessary (for example: DatabaseServer\DatabaseInstance).

- Database name: Enter the name of the application service database.
- Database login (CH): Keep 'Windows authentication' activated.

To use SQL Server authentication: Deactivate 'Windows authentication' and enter the database user.

Attention: For Oracle, only SQL Server authentication is approved.

Note: The database user (and login) must be created manually on the database. The database user requires authorization for the role 'ExosCommHub'. The scripts 'RECREATE_USER_Fxx_v4.1.0.sql' (SQL Server) or

'CREATE_USER_Fxx_v4.1.0.sql' (Oracle) can be used as support. Example: Create the database user 'Exos9300F01' using script and enter it as depicted in the screenshot.

plication Service database	
Database server type:	SQL Server \checkmark
Database server name:	
Database name:	Exos9300
Database login (CH):	☑ Windows authentication
onlication Service server	
pplication service server	
Application service hostname:	

- 11. Select 'Next'.
- 12. Select 'Install' to install the communication hub.

Ready to install	
Click 'Install' to begin installation. This will insta machine. Are you sure you want to continue? information or click 'Cancel' to exit the wizard.	ll Kaba exos 9300 CH Services on your Click 'Back' to re-enter the installation
	< Back Cancel

- ⇒ Installation starts.
- 13. Click 'Finish' to end the installation.
- 14. Select 'Next'.
- \Rightarrow The communication hub is installed.

Also see about this

■ Logins, server roles and user mappings for databases [▶ 16]

3.3.2.1 Authorization

The communication hub requires the following authorization:

Services (Local)						
Kaba exos 9300 Application Service	Name	Description	Status	Startup Type	Log On As	
	🖏 Kaba exos 9300 Ap	Kaba exos 9	Started	Automatic	Local System	
Stop the service Restart the service	🎑 Kaba exos 9300 Co	Kaba exos 9	Started	Automatic	Local System	

The communication hub requires the following database authorization:

Select a page	Script	🔻 🕜 Help			
 General Server Roles User Mapping 	Users ma	apped to this login:			
Securables	Мар	Database	User	Default Schema	^
P Status		Exos9300_V402_upd			
		Exos9300_V4070	NT AUTHORITY\SYS		
		tempdb			
Connection					~
localhost	Database	e <u>r</u> ole membership for: Exos	0300_V4070		
Iocalhost Connection: vi View connection properties	Database db_d db_d db_d db_d db_s db_s Exos Exos	e <u>role membership for: Exos</u> dladmin enydatareader enydatawriter wner ecurityadmin Dialog Dialog Dialog DotNet)300_V4070		^
Iocalhost Connection: View connection properties Progress	Database db_d db_d db_d db_s db_s Exos Exos Exos	e role membership for: ExosS dladmin enydatareader enydatawriter wmer ecurityadmin Dialog Dialog DotNet Reporting)300_V4070		^

1

A Windows user can be selected in order to execute the communication hub service. If this user is not a Windows administrator, they need to be assigned 'Full access' to the following registry folder:

- 64-bit operating system: \HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\KABA
- 32-bit operating system: \HKEY_LOCAL_MACHINE\SOFTWARE\KABA

This command line may also need to be executed:

```
netsh http add urlacl url=http://+:8002/IIDML2CommunicationHubService/
user=DOMAIN\USER listen=yes
```

3.3.3 Installing web applications



The web applications must have an SSL certificate.

If a certificate for HTTPS has already been configured in IIS, that certificate is used by the web applications by default. If the certificate supplied by Kaba exos is to be used, the existing certificate must be removed before installing the web applications (see the document 'RM_Kabaexos9300-Web-Applications').

1.	Launch the 'WebApps.msi' file.
	Welcome to the Kaba exos 9300 Web Applications Install
	It is strongly recommended that you exit all Windows programs before running this setup program.
	Click 'Cancel' to quit the setup program, then close any programs you have running. Click 'Next' to continue the installation.
	WARNING: This program is protected by copyright law and international treaties.
	Unauthorised reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
	< Back Next > Cancel

- 2. Select 'Next'.
- 3. Accept the licence agreement.

Licence information You must agree with the licence agreement below to proceed.	
1. Scope of application	^
1.1 This FULA (End User Licence Agreement) is a legally binding agreement between the	
Customer, either as a natural or legal person, and domakaba Schweiz AG (hereinafter referend to as "domakaba") and contains provisions concerning the use of Kaba exos 9300 software in connection with the access systems sold by dommakaba and installed by the Customer ("Host Systems"). The domakaba software is provided to the Customer for contractual use. The software also includes licensed third-party components that are licensed to the Customer in bundles together with the domakaba software under the terms of this Agreement.	
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	Licence information You must agree with the licence agreement below to proceed. 1. Scope of application 1.1. This EULA (End User Licence Agreement) is a legally binding agreement between the Customer, either as a natural or legal person, and domakaba Schweiz AG (hereinafter referred to as "domakaba") and contains provisions concerning the use of Kaba exos 9300 software in connection with the access systems sold by domakaba and installed by the Customer ("Host Systems"). The domakaba software is provided to the Customer for contractual use. The software also includes licensed third-party components that are licensed to the Customer in bundles together with the domakaba software under the terms of this Agreement. 1.2. The software, all its further developments, adaptations and innovations, such as patches, updates and upgrades, together with the documentation outlined in Clause 16, shall together be regarded in the following as constituting the "Product" (also called "Software"). For the purposes of this Agreement, the "Customer" ('you') means all end users, domakaba customers and appendix or distribution patrices provided with the Product in order to use it for installing, managing

I accept the licence agreement:						
< <u>B</u> ack	<u>N</u> ext >	Cancel				

- 4. Select 'Next'.
- 5. Select the desired web applications.

Web Launcher Visitor Management Web Login	
	~
Feature description Installs the Kaba exos 9300 Web Applications.	

C	heck if required components are missing	on your system	
	Prerequisite		Detected version
√	Windows		manuel - 1.10210
√	Microsoft .NET Framework		187
√	Microsoft Internet Information Services	(IIS)	
	Previously installed version		
Leg	end:		
-	Supported version installed	<u> Unsupporte</u>	d version installed
X	Prerequisite is completely missing	Prerequisite	is not required

- 7. Select 'Next'.
- 8. Select services installation directory: Select the application service directory.
 Select the directories for the individual web applications.

Select web launcher installation directory		
C:\inetpub\wwwroot\Launcher\		B <u>r</u> owse
Select visitor management installation dir	ectory	
C:\inetpub\wwwroot\VisitorManagement\		B <u>r</u> owse
C:\inetpub\wwwroot\VisitorManagement\ Select web login installation directory C:\inetpub\wwwroot\Exos9300Login\		B <u>r</u> owse B <u>r</u> owse
C:\inetpub\wwwroot\VisitorManagement\ Select web login installation directory C:\inetpub\wwwroot\Exos9300Login\ Select contractor management installation	1 directory	Browse Browse

- 9. Choose 'Next' until you reach the page 'Common service configuration'.
- 10. Server name: Enter the name of the server on which the application service is installed.
 IIS website name/folder: If the web applications are not to be installed in the IIS under the 'default website', specify the name and/or directory of the website.

Attention: If the web applications are not installed in the same website as that of the API (see section 'Installing the application service'), the valid certificate for each generated website must be assigned after the installation in IIS and the HTTPS binding must be manually configured.

- Windows authentication: To use Windows authentication, select the checkbox.

Application service runni	ing on	
IIS Web Site Name:	Default Web Site	
IIS Web Site Folder:	C:\inetpub\wwwroot\	Browse
User settings		
Windows authentication:		

12.

Select 'Install'.
Ready to install
Click 'Install' to begin installation. This will install Kaba exos 9300 Web Applications on your machine. Are you sure you want to continue? Click 'Back' to re-enter the installation information or click 'Cancef to exit the wizard.
< Back Cancel

- ⇒ Installation starts.
- 13. Click 'Finish' to end the installation.
- \Rightarrow The web applications are installed.



1.

Further information on IIS can be found in the document 'RM_Kabaexos9300-Web-Applications'.

3.4 Installing the client

Launch the 'Client.msi' file.
Welcome to the Kaba exos 9300 Client Installation
It is strongly recommended that you exit all Windows programs before running this setup program.
Click 'Cancel' to quit the setup program, then close any programs you have running. Click 'Next' to continue the installation.
$\ensuremath{WARNING}$: This program is protected by copyright law and international treaties.
Unauthorised reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< <u>B</u> ack <u>N</u> ext > Cancel

- 2. Select 'Next'.
- 3. Accept the licence agreement.

Licence information	
You must agree with the licence agreement be	low to proceed.
1. Scope of application	
1.1. This EULA (End User Licence Agreement) is Customer, either as a natural or legal person, and as "domakaba") and contains provisions conce connection with the access systems sold by dom Systems"). The domakaba software is provided also includes licensed third party components the together with the domakaba software under the	a legally binding agreement between the domakaba Schweiz AG (hereinafter referred to ning the use of Kaba exos 3000 software in takaba and installed by the Customer ("Host to the Customer for contractual use. The software it are licensed to the Customer in bundles terms of this Agreement.
1.2. The software, all its further developments, an updates and upgrades, together with the docume regarded in the following as constituting the "Pro of this Agreement, the "Customer" ("you") means specialist or distribution partners provided with the	laptations and innovations, such as patches, entation outlined in Clause 1.6, shall together be duct" (also called "Software"). For the purposes : all end users, domakaba customers and e Product in order to use it for installing, managing
	I accept the licence agreement: 🛛 🗸
	< Back Next > Cancel

C	heck if required components are missing on	your system	
	Prerequisite		Detected version
√	Windows		manuel - 1 1010
√	Microsoft .NET Framework		107 11.1
	Microsoft .NET Core Hosting		
	Microsoft Internet Information Services (IIS)	
	Erlang OTP runtime		
	RabbitMQ		
	Previously installed version		1.1.1.1.1.1
Leg	end:		
-	Supported version installed	Nunsupported	version installed
>	Prerequisite is completely missing	Prerequisite	is not required

- 5. Select 'Next'.
- 6. Choose the directory under which the client is to be installed.

Select installation location The following information is used by Kaba ex	xos 9300 Client
Colact installation disasters	
C:\Program Files\Kaba\Exos9300\Dialog\	B <u>r</u> owse
	< Back Next > Cancel

- 7. Select 'Next'.
- 8. Server name: Enter the name of the server on which the application service is installed. - Language: Select the user language.
 - Windows authentication: To use Windows authentication, select the checkbox.

Attention: The user must already exist as a user for Windows authentication in Kaba exos.

	J		
ser settings			
Language:	German	\sim	
Windows authenticatio	n:		

- 10. Select 'Install' to install the application. Ready to install
 Click 'Install' to begin installation. This will install Kaba exos 9300 Client on your machine. Are
 you sure you want to continue? Click 'Back' to re-enter the installation information or click
 'Cancef to exit the wizard.
 - \Rightarrow Installation starts.
- 11. Click 'Finish' to end the installation.
- \Rightarrow The client is installed.

Also see about this

Installing desktop reader service [▶ 34]

3.4.1 Installing desktop reader service

If the web applications and the desktop reader are to be used, the desktop reader service must be installed locally.

For this, the 'DesktopReaderService.msi' file must be executed.

CORS must be configured during the installation. Detailed information about CORS can be found under https://en.wikipedia.org/wiki/Cross-origin_resource_sharing.

The certificates 'Desktop reader service root <Computername>' and 'Desktop reader service <Computername>' are installed by default.

Configuring an SSL certificate

Proceed as follows to use your own SSL certificate for the desktop reader service.

- ✓ The certificate is installed.
- 1. Run 'ServiceConfiguration.exe' in the installation directory for the desktop reader service as an administrator.
- Enter the following values: Host: 'localhost' or computer name Port: '10800' Activate the 'Enable SSL' checkbox
- 3. Select 'Select certificates'.
 - All of the certificates installed on the computer under 'Local computer/Self-signed certificates' are displayed.
- 4. Select the desired certificate.
- 5. Select 'OK'.
- \Rightarrow The SSL certificate has been configured.



If problems arise when operating the desktop reader with Microsoft Edge, see section 'Known problems [> 6.2]'.

3.4.2 Installing 3M passport scanner service

The 3M passport scanner service enables passports to be scanned and specific functions within the web applications used.

To install the service, run the file 'MMMPageReaderService.msi' and follow the instructions in the installation assistant.

CORS must be configured during the installation. Detailed information about CORS can be found under https://en.wikipedia.org/wiki/Cross-origin_resource_sharing.

After the installation:

- The port can be changed using the file 'MMMPageReaderServiceConfiguration'.
- The service '3M Page Reader Service' must be active.
- The certificates 'MMMPageReaderService<computer name>' and 'MMMPageReaderService root <computer name>' must be present.



In case of problems in the operation of the scanner with Microsoft Edge see chapter 'Known problems $[\blacktriangleright 6.2]$ '.

3.4.3 Installing Mitek passport scanner service

The Mitek passport scanner service enables Spanish forms of identification (passport, ID card, driving licence) to be scanned and specific functions within the web applications used.

To install the service, run the file 'MitekIDService.msi' and follow the instructions in the installation assistant.

CORS must be configured during the installation. Detailed information about CORS can be found under https://en.wikipedia.org/wiki/Cross-origin_resource_sharing.

After the installation:

- The port can be changed using the file 'MitekIDServiceConfiguration'.
- The service 'Mitek ID Service' must be active.
- The certificates 'Mitek ID service <computer name>' and 'Mitek ID service root <computer name>' must be present.



In case of problems in the operation of the scanner with Microsoft Edge see chapter 'Known problems $[\blacktriangleright 6.2]$ '.

3.4.4 Installing IRIS desktop readers service

With the IRIS desktop reader service, information can be read from Malaysian passports so specific functions within the web applications can be used.

Before installing the IRIS desktop reader service, the 'IRIS Smart Reader SCR21U' driver must be installed as described by the manufacturer.

To install the service, run the file 'IrisCardReaderService.msi' and follow the instructions in the installation assistant.

CORS must be configured during the installation. Detailed information about CORS can be found under https://en.wikipedia.org/wiki/Cross-origin_resource_sharing.

After the installation:

- The port and the certificate can be changed using the file 'IrisCardReaderServiceConfiguration.exe' in the installation folder. The process corresponds to that of the normal desktop reader: see section 'Installing desktop reader service [> 3.4.1]'.
- The service 'IRIS Card Reader Service' must be active.

 The certificates 'IRIS card reader service <computer name>' and 'IRIS card reader service root <computer name>' must be present.



In case of problems in the operation of the desktop reader with Microsoft Edge see chapter 'Known problems [\triangleright 6.2]'.

3.4.5 Installing signature reader

Proceed as follows in order to install the signature reader:

- 1. Download the software 'WebSocket Pad Server' (from version 1.1.2) from the Signotec website and then launch the software.
 - \Rightarrow The installation wizard is launched.
- 2. Select the language, then select 'OK' and 'Next >'.
- 3. Accept the licence agreement and then select 'Next >'.
- 4. Use the preset default settings and select 'Next >' twice.
- 5. Select 'Install'.
 - \Rightarrow The signature reader is installed.
- 6. Select 'Complete'.
- \Rightarrow The installation is complete.

If Windows is unable to find the installed driver, the software 'WinUSB driver' must also be downloaded from the Signotec website and then launched.



In order to use the signature reader with Mozilla Firefox, the certificate must first be imported into the certificate management. This is not necessary for other browsers.

In case of problems in the operation of the reader with Microsoft Edge see chapter 'Known problems [\triangleright 6.2]'.



The 'signoPAD-API' can also be installed for other configuration options.

4 First steps

This section describes the first steps to be taken after the installation of Kaba exos.

4.1 Logging in

1. Open the program via 'Start - Kaba exos'.

Kaba exos 9300		- 🗆 ×
	User name: Admin 🗸	
	Password:	
	Login	
2019-10-24 09:09:0	Connection established successfully (login service host:	

- $\Rightarrow~$ The launcher opens in the language saved for the link. The link is created with the language selected during setup.
- \Rightarrow Status messages are displayed in the lower area of the launcher.
- Enter the user name and password (standard: admin, 1234).
 Note: The user name is specified in staff data management. Each user can specify their password independently.
- 3. If more than one tenant is available, select a tenant.
- 4. On logging in for the first time, replace the old password with a new one.
- 5. Select 'Check in'.

⇒ The launcher opens in the language saved for the database.
 Note: The language can be changed [▶ 4.3] in the launcher at any time.

 [™] Kaba eccs 9300



⇒ The programs marked with 'Autostart' () are started automatically and displayed in the taskbar.



NOTICE

If the 'r9KabaExosServiceLogin' service has not started or is not accessible on the application server (e.g. port blocked), 'Host selection' appears as the first mask and not 'User name/ password'. In this case, contact the system administrator.

1	-	
	•	
	1	

With Windows authentication, the launcher starts automatically without one having to enter the user name/password. The login screen will, however, appear after logout. In order to be able to log in with Windows authentication again, the launcher will need to be exited and restarted.

If the error message 'The maximum number of logged in operator stations has been reached' appears, then too many users are logged into the system (licence infringement). It is only possible to log into the system once other users have logged off.

4.2 Tray-icon

The 'Kaba exos' tray icon, via which various actions can be executed, can be found at the bottom right in the taskbar.

- **Mouseover**: Displays information about the version.
- **Double-click**: Opens the launcher.
- **Right-click**: Opens the tray icon menu in the current language.

The following actions are possible via the tray icon menu:

- **Display launcher:** The launcher is displayed in the foreground.
- **Applications**: The Kaba exos applications and customer-specific applications are displayed and started. Applications that have already been started are marked with a dot.
- Languages: The installed languages are displayed and can be changed.
- Minimise launcher instead of closing it: Here it is possible to define whether clicking the cross icon at the top-right of the dialogue closes the launcher and logs the user out or minimises the launcher to the tray-icon. This setting can also be made for the entire system (see the document 'RM_Kabaexos9300-System-and-Settings'). For safety reasons, the launcher is closed by default, and the user is checked out.
- Minimise launcher on start-up: Here it is possible to define whether the launcher remains open in the background or whether it is minimised to the tray-icon.
 Note: This only works if 'Autostart' is activated for at least 1 application (see Logging in [> 4.1]).
- **Change password**: Passwords can be changed here. The launcher changes to the password dialogue and your password can be changed.
- **Logout**: The user is logged out. The tray icon disappears and the login dialogue is displayed again.
- Close: All Kaba exos applications including the tray icon are closed.
 Note: All open applications are closed automatically on these actions. Any unsaved changes will be lost.

4.3 Launcher

The applications are started via the launcher. The applications that will be displayed and started depends on the relevant user authorizations [\blacktriangleright 4.4].





The icons in the launcher can be moved using drag-and-drop. The position of the icons will be saved for the user who is logged in and will be retained after they log off.

Open applications



- 1. Click on an icon with the left mouse button.
 - \Rightarrow The corresponding application opens.
 - ⇒ Applications already opened are highlighted in colour and will be brought into the foreground when they are clicked again.
 - ⇒ If the checkbox is selected, then the application will start automatically after successful login (Autostart). This setting is user-specific.

Change language

The language can be changed using the selection list. After this change, all newly-started applications will be opened in the new language. The language of applications that are already open will not change.

The following languages are supported:

- German
- English
- French
- Italian

Other actions

Other actions can also be carried out, some of which are also covered by the tray icon menu:

Additional information about Kaba exos is displayed:

Information	Remark
Company	Company to which the licence is issued
Licence	Customer name
Release	Software version
Expiration date	Licence expiration date
Dialogue release	Dialogue version
Host login	Host address of login service
Application host	Host address of application service
User	Logged-in user
Tenant	Name of the tenant

- **Change password**: Passwords can be changed here. The launcher changes to the password dialogue and your password can be changed.
- **Logout**: The user is logged out. The tray icon disappears and the login dialogue is displayed again.
- Close: All Kaba exos applications including the tray icon are closed.
 Note: All open applications are closed automatically on these actions. Any unsaved changes will be lost.

4.4 Authorizations

In the web applications under 'Menu – User groups management', it is possible to set the authorizations for the relevant applications. A user will have access/no access to corresponding applications depending on the authorizations. In addition, non-authorized applications will not appear for a user in the launcher.



Modifications to the user authorisations of a registered user are not valid immediately. The user must log out and log in again for the changed user authorisations to become valid.

5 Additional information

This chapter provides additional information about the product.

5.1 Encrypted communication between the CH and the access manager

A secure connection (encrypted and trusted) can be configured between the communication hub (CH) and the access manager 92 xx. To achieve this, both the CH and the access manager must have certificates.

These certificates can be generated using either an existing master root certificate or a new master root certificate. A master root certificate is a certificate with a private key that is only used for issuing additional certificates.



NOTICE

Prior to configuration, it must be ensured that the type of access manager used supports the 'TLS' function.



If the IP address or the port of the access manager is changed, the access manager and the CH must be restarted.

1. Install a master root certificate

Either an existing master root certificate can be installed, or a new master root certificate can be generated and installed.

In order to install an existing master root certificate, proceed as follows:

- 1. Execute the 'FSServiceConfiguration.exe' file in the 'ServicesCH' folder of the Kaba exos installation.
- 2. Choose 'Load Existing Root Certificate'.

Master Root SSL	
 Master Root SSL Load Existing Root Cert Install Trusted CA Root Communication Hub S AMX 92 00 Certificates 	I am going to Load Existing Root Certificate Generate New Master Root Certificate (Advanced Option)
	Next Cancel

- 3. Select 'Next'.
- 4. Select the storage location and file name for the master root certificate.
- 5. Enter the password for the master root certificate.
- 6. Select 'Verify Certificate'.

⇒ The master root certificate has been verified and the thumbprint is displayed. Load Existing Root Certificate

 Master Root SSL Load Existing Root Ce 	- Master CA Root C	ertificate
 Load Existing Root Ce Install Trusted CA Root Communication Hub S AMX 92 00 Certificates 	CA Root Name: File name: Password: Name: dormakal Thumbprint: D42 Valid from 05/03	dormakaba Exos9300 Enterprise Root CA C:\Users\admin\Documents\Exos9300 Root CA.pfx ba Exos9300 Enterprise Root CA Algorithm: sha256RSA Keysize: 2048 E519C5188E77204ADBE0AA0708F421EC48126 //2020 to 05/03/2070
		Verify Certificate

- 7. Select 'Next'.
- 8. Select 'Install CA Root'.
 - \Rightarrow The master root certificate has been installed.
 - ⇒ The certificate 'Exos Enterprise Trust root CA' can be found in the 'Microsoft Management Console' (mmc.exe).

Install Trusted CA Root Certificate

 Master Root SSL Generate New Root SSL 	- Master CA Root C	ertificate
► Install Trusted CA Roo	CA Root Name:	dormakaba Exos9300 Enterprise Root CA
Communication Hub S AMX 92 00 Certificates	Save As : Password: Name: dormakal	C:\User\admin\Documents\Exos9300 Root CA.pfx
	Thumbprint: D42 Valid from 05/03	E519C5188E77204ADBE0AA0708F421EC48126 /2020 to 05/03/2070
		Install CA Root
		Next Cancel

9. Select 'Next'.

10. Follow the instructions from section '**2. Generating and assigning a certificate to the CH**'. In order to generate and install a **new master root certificate**, proceed as follows:



NOTICE

The master root certificate should be stored in a safe place and a security copy must be created.

1. Run the 'FSServiceConfiguration.exe' file in the 'Services' folder of the Kaba exos installation.

2. Select 'Generate New Master Root Certificate'. Master Root SSL

 Master Root SSL Load Existing Root Cert Install Trusted CA Root Communication Hub S AMX 92 00 Certificates 	l am going to O Load Existing Root Certificate Generate New Master Root Certificate (Advanced Option)
	Next Cancel

- 3. Select 'Next'.
- 4. Under 'SSL Properties' in the 'Key Length' field, select the key length, then choose the algorithm under 'Signing Algorithm'.
- 5. Select the storage location and file name for the master root certificate.
- 6. Enter a password for the master root certificate.
- 7. Select 'Generate Master Root Certificate'.
 - ⇒ The master root certificate has been generated and the thumbprint is displayed. Generate New Root SSL

 Master Root SSL Generate New Root S Install Trusted CA Root Communication Hub S AMX 92 00 Certificates 	Master CA Root Co	ertificate
	Save As : Password:	C:\Users\admin\Documents\Exos9300 Root CA.pfx
	Name: dormakal: Thumbprint: D42 Valid from 05/03,	va Exos9300 Enterprise Root CA Algorithm: sha256RSA Keysize: 2048 E519C5188E77204ADBE0AA0708F421EC48126 /2020 to 05/03/2070
	SSL Properties Key Length: 2	048 V Signing Algorithm: SHA256 V Generate Master Root
		Next Cancel

- 8. Select 'Next'.
- 9. Select 'Install CA Root'.
 - \Rightarrow The master root certificate has been installed.

⇒ The certificate 'Exos Enterprise Trust root CA' can be found in the 'Microsoft Management Console' (mmc.exe).

Install Trusted CA Root Certificate

Install Trusted CA Roo	CA Root Name:	dormakaba Exos9300 Enterprise Root CA
Communication Hub S AMX 92 00 Certificates	Save As : Password:	C:\Users\admin\Documents\Exos9300 Root CA.pfx
	Name: dormakal Thumbprint: D42 Valid from 05/03	2007
		Install CA Root

10. Select 'Next'.

2. Generating and assigning a certificate to the CH

- 1. Enter a name for the certificate.
- 2. Enter the IP address of the CH.
- 3. Select 'Generate and Assign Certificate to Local CH'.
 - \Rightarrow The certificate has been generated and assigned to the local CH.
 - ⇒ The certificate can be found in the 'Microsoft Management Console' (mmc.exe). Communication Hub SSL

Voenerate New Koot SSL Voenerate New Koot SSL Voenerate CA Root Communication Hub AMX 92 00 Certificates	- Communicat Name: CH Host :	Communication Hub service 127.0.0.1 Port: 8443 Generate and Assign Certificate to Local CH
	Name: Com Thumbprint Valid from 0	munication Hub service Serial: 591925C5C0099EAB4F4CED9430A6A7A1 :: 70A2B2DBB62F8437FBFF439666988076BEE59EBE 05/03/2020 to 05/03/2070

- 4. Select 'Next'.
- 5. Restart the CH.

3. Generating an access manager certificate

- 1. Select the storage location for the certificate.
- 2. Enter the password for the certificate.
- 3. Enter or import the access manager IP address via 'Add' or 'Import IP'.
- 4. If necessary, repeat step 3 for further access managers.
- 5. Select 'Generate and Export'.

A certificate with the file extension 'pem' has been generated and saved in the specified storage location for each IP address entered.
AMX 92 00 Certificates

AMX 92 00 Certific

 ✓ Master Root SSL ✓ Generate New Root SSL 	4. Kaba access	manager 92 00 Certificate		
 Install Trusted CA Root Communication Hub S AMX 92 00 Certificates 	Ouput Path: Password: IP Addresses:	C:\Users\admin\Documents 12.12.12.12	Add Import IP	
		Generate and Export	Extra Export in pfx for	omat
				Finish Cancel

- 6. Adjust the certificate name if necessary.
- 7. Click 'Finish'.

4. Integrating a certificate into the access manager



NOTICE

The following steps must be carried out in a secure environment (e.g. secure network, crosslink cable) so that the certificate and password cannot be accessed by unauthorized parties.

- ✓ The access manager web interface is open.
- 1. In the menu, select 'Configuration Security settings'.
- 2. Set 'TLS' to 'activated'.
 - \Rightarrow Further options are shown.
- 3. For 'CA certificate', select the master root certificate (e.g. cacert.pem).
- 4. For 'Device certificate', select the certificate for the access manager (e.g. devicecert 12.12.12.pem) and enter the password.
- 5. Click 'Save'.

dormakaba 🚧	Access manager Se	curity settings	
र्द्ध Tasks			😅 Refresh 🕞 Logout
STATE	Host system (TLS)		
System state	Freehad		
Subdevices	Enabled	M Activisted	
Dalabase state	CA certificate	16.02 2021 - 16.02 2071 Certificate is valid.	
LEGIC			
MIFARE	Device certificate	* 31.08.2021 - 31.08.2071 Certificate is valid.	
CONFIGURATION	CA certificate	Browse 🗸 found	
Network settings	Device certificate	Browse 🗸 tound	
Communication settings			
RS-485 settings			Save
Security settings	Web server (HTTPS)		

- 6. Restart the access manager.
- \Rightarrow The certificate has been integrated into the access manager.

5. Activate TLS in system management

 \checkmark The system management is opened and the access manager is selected.

- 1. Activate 'TLS'.
- 2. Adjust the port number, if necessary.

Address Na	ne	
I01 0001 A	ccess manager 92 00 ✓ activated	
IP address 12 . 12 . 12	Port number . 12 8443 ☑ TLS	
Basic data Informa	tion Devices Alarm contacts	
	Type: Kaba access manager 92 00 LEGIC	~

- 3. Restart the CH.
- \Rightarrow The CH has been configured.

Display certificate

The following command in the Windows command prompt can be used to display the certificate that has been assigned to the standard port '8443':

netsh http show sslcert ipport=0.0.0.0:8443

Integrating any certificate

The following command in the Windows command prompt can be used to assign any certificate to the standard port '8443':

httpcfg set ssl -i 0.0.0.0: 8443 -h <thumbprint of the certificate>

Example:

httpcfg set ssl -i 0.0.0.0: 8443 -h 000000000003ed9cd0c315bbb6dc1c08da5e6

The CA root certificate integrated in this way must also be installed on the access manager.

5.2 API help

Swagger is used for the Kaba exos API documentation. Swagger is an open source framework for the design, creation, documentation and use of APIs.

Swagger offers the following advantages:

- Interactive documentation (direct testing of API functions via 'Try it out')
- Range of tools offered (Swagger Editor, Swagger UI, etc.)
- User-friendly interface

5.2.1 Access

The API help is integrated in every Kaba exos system and is generated from the JSON files that are available by default in the 'C:\inetpub\wwwroot\ExosApi\Help\Help\directory.

Show API help

For security reasons and to avoid misuse, the API help is hidden by default. To show the API help, the 'Web.config' or 'appsettings.json' file on the web server must be adapted in the corresponding directory:

Show API help for 'ExosApi'

In the .../inetpub/wwwroot/ExosApi/Web.config file,

remove the following entries:

```
<hiddenSegments>
<add segment="Help" />
<add segment="index.html" />
<add segment="errorCodes.html" />
</hiddenSegments>
```

Set the 'ShowAPIHelp' parameter to 'true':

```
<appSettings>
<add key="ShowAPIHelp" value="true" />
</appSettings>
```

```
Show API help for 'ExosAPILogin'
```

In the .../inetpub/wwwroot/ExosAPILogin/Web.config file,

remove the following entries:

```
<hiddenSegments>
<add segment="Help" />
<add segment="index.html" />
<add segment="errorCodes.html" />
</hiddenSegments>
```

Set the 'ShowAPIHelp' parameter to 'true':

```
<appSettings>
<add key="ShowAPIHelp" value="true" />
</appSettings>
```

In the .../inetpub/wwwroot/ExosApi/Web.config file,

remove the following entries:

```
<hiddenSegments>
<add segment="Help" />
<add segment="index.html" />
<add segment="errorCodes.html" />
</hiddenSegments>
```

Show API help for 'ExosFrontendAPI'

In the .../inetpub/wwwroot/ExosFrontendAPI/Web.config file,

remove the following entries:

```
<hiddenSegments>
<add segment="Help" />
<add segment="index.html" />
<add segment="errorCodes.html" />
</hiddenSegments>
```

Set the 'ShowAPIHelp' parameter to 'true':

```
<appSettings>
<add key="ShowAPIHelp" value="true" />
</appSettings>
```

Show API help for 'ExosCore'

Adapt 'appsettings.json'

In the .../inetpub/wwwroot/ExosCore/appsettings.json file,

set the 'ShowAPIHelp' parameter to 'true':

ShowApiHelp:true

The 'ExosCore' or IIS website needs to be restarted for the modification to become active in the 'appsettings.json' file.

You can call up the API help for 'ExosCore' via https://servername/ExosCore/help/index.html.

Use the following links to call up the API help:

https://[server_name]/exosapilogin

https://[server_name]/exosapi

If no installed Kaba exos system is available, you can access the Kaba exos demo system. Just send a request to the support team (support.exos@dormakaba.com).

5.3 Resolution of host names

The host name should only resolve exactly 1 IP address. If the host name resolves several IP addresses, there is a risk that not all service endpoints will use the same IP address. Some services also provide their functionality for each resolved IP address, which poses an unnecessary security risk. An IP address can also be used instead of a host name. For IPv6 addresses, however, it must be noted that the address must be enclosed in square brackets ([]) (according to RFC 2732). The automatic addition of brackets has not yet been implemented consistently in Kaba exos.

5.4 Replacing a self-signed certificate

A self-signed certificate is automatically created and assigned for WCF (Windows Communication Foundation) services and the exos ERP service (interface to B-COMM ERP/ EACM) when the application server is installed and updated. It is recommended to replace this certificate with a trustworthy one.

The certificate can be replaced in 2 ways:

- manually, as explained in the documentation from Microsoft
- using the provided 'Application Server Configuration' tool (u9ApplicationServerConfiguration.exe)

Follow the steps below to replace the certificate on the application server using the Application Server Configuration tool:

- \checkmark Services are operated with default ports.
- ✓ Trustworthy certificate is available.
- 1. Execute the 'u9ApplicationServerConfiguration.exe' file.
- 2. Choose 'Select Certificate...'.
- 3. Select the certificate.
- 4. Click 'Save'.
- ⇒ The certificate has been replaced. The desired certificate must be manually added to the certificate store on the client computers.

6 Troubleshooting

This section provides important information on remedying product errors.

6.1 Error analysis

If the installation fails, the logbook can be activated to analyse the errors. To do this, open the Windows command prompt in the installation file directory and enter the following command:

msiexec /i "Service.msi" /L*V "log.log"

The task steps are recorded in the file 'log.log'.

6.1.1 Browser asks for login data

Problem	When calling the web applications, the browser asks the user for login data.
Cause	The browser cannot determine whether the server, on which the web applications are installed, is located on the local intranet.
Solution	Add the server to the local intranet.
	For Microsoft Edge and Google Chrome, the internet options can be defined as follows:
	Internet Properties ? General Security Privacy Content Connections Programs Adv Add this website to the zone: General Security Privacy Content Connections Programs Adv Select a zone to view or change security settings. Internet Add this website to the zone: Internet Add Internet Internet Intern
	Security level for this zone Custom Custom Bettings - To change the - To use the rec Enable Protected Mode Muta are intranet settings? OK Cancel Automatically detect intranet network Include all local (intranet) sites not listed in other zones Include all altes that bypass the proxy server Muta are intranet settings? Advanced OK Cancel
	For Mozilla Firefox, the following procedure is followed:
	I. IN FIRETOX, ENTER "about:config" in the address bar.
	2. In the search bar, enter inetwork.automatic-htlm-auth.trusted-uris'.
	3. In the corresponding row, add the desired page.
	4. Save the modifications.
	5. Restart the browser.

6.2 Known problems

API no longer available

Problem	After uninstalling the web applications, the API is no longer available.
Cause	During uninstallation of web applications (WebApps.msi), the 'Exos9300WebPool' application pool needed for the API was deleted.
Solution	Reinstall or refresh the services (feature 'exos API' from Services.msi).

No access to APIs from browser

Problem	Unlike other applications (e.g. 'Postman'), it is not possible to access the API endpoints 'ExosAPI' and 'ExosCore' from the web application.
Cause	The CORS settings have not been correctly configured in the APIs' config- uration files. The error messages can be checked with the help of the de- veloper tools of the browser.
Solution	Correctly configure the CORS settings in the APIs' configuration file- sCORS settings for APIs [> 3.3.1.4]

Missing information in the access management reports

Problem	The message 'Error when retrieving data' appears in the access man- agement reports.
Cause	 The incorrect version of Microsoft Report Viewer is installed. The sequence of installation of the components was not correct.
Solution	 Uninstall the current version of Microsoft Report Viewer. Install the correct version of Microsoft Report Viewer.

Troubleshooting for Microsoft Edge

Certain functions of local services (desktop reader, IRIS etc.) may not work correctly with Microsoft Edge.

If this is the case, proceed as follows:

- 1. Execute the Windows command prompt as the administrator.
- 2. Execute the following command: CheckNetIsolation LoopbackExempt -a -n=Microsoft.MicrosoftEdge 8wekyb3d8bbwe
- 3. Restart Microsoft Edge.

If the problem persists, one of the following two commands can be attempted:

CheckNetIsolation LoopbackExempt -a -n=Microsoft.Windows.Spartan cw5n1h2txyewy

CheckNetIsolation LoopbackExempt

```
-a -
p=S-1-15-2-3624051433-2125758914-1423191267-1740899205-1073925389-3782572162
-737981194
```

If the problem reappears after restarting the PC, then the issue lies with the PC's basic settings. In this case, the IT department must be consulted in order to deactivate the resetting of the basic settings.

6.3 Reporting a problem to support

Kaba exos 9300 support

Software support is organised as follows:

- 1st level support by customer (based on individual agreement)
- 2nd level support by local dormakaba sales partner (RMO)

 3rd level support by dormakaba Switzerland Ltd, Product Development, Access Solutions EMEA

6.3.1 General information regarding a support case

The 3rd level support from Kaba exos 9300 is guaranteed by dormakaba Switzerland Ltd, Product Development, Access Solutions EMEA. The problem descriptions are reported via the web portal.

Please provide the following information for effective processing of support requests:

Basic information

- Name of the customer
- Installation location/project
- Product/version
- Communication hub
- Database version
- Hardware
- Error

Additional information

- Brief, concise error description in the subject line
- Detailed error description:
 - Since when has the problem been occurring? What has been changed?
 - What have you already done to solve the problem?
 - What are the results of the analyses already performed?
 - What is the priority of this case and, if high priority, what is the reason?

Case-specific information

- Screenshots of the error messages; if details are available, send along the text file
- Windows event logs (export them)
- Associated error messages from the cTrace database table
- Logbooks: Access, Display, Download, System, Alarm, Error and T&A, etc.
- Screenshots of the configuration, registry entries, etc.
- Hardware used and the associated firmware versions
- Operating system used, database management system including version (SQL Server or Oracle)
- Description of the system structure; a diagram of the structure may be useful for complex systems and depending on the problem



Provide the customer databases and the Kaba exos 9300 system license to the support only upon request.

Support contact information dormakaba Support Portal:

https://support.ead.dormakaba.com/hc

Online Access Control Systems (Kaba exos, online periphery):

E-mail: support.exos@dormakaba.com

Hotline: +41 44 818 93 38

Notes

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