

EVVA



Installation instructions Server with Ubuntu 22.04



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This edition shall not longer be valid upon publication of a new system manual.

You can find the latest edition in the EVVA download area:

https://www.evva.com/uk-en/service/downloads/

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1 Introduction

This document is an excerpt from the Xesar 3.1 system manual.

The products and/or systems described in the Xesar system manual must exclusively be operated by persons that have been adequately qualified for the corresponding task. Qualified personnel is able to identify risks when handling products/systems and prevent potential hazards on the basis of their expertise.

1.1 General legal notes

EVVA shall conclude the contract for the use of Xesar on the basis of the EVVA GTC (General Terms and Conditions) and EVVA GTC (General Terms and Conditions) for the software for the product.

You can call up the EVVA General Terms and Conditions and EVVA General Terms and Conditions:



https://www.evva.com/uk-en/legal-notice/

Please note that the use of the Xesar locking system may trigger legal obligations, in particular data protection authorisation, reporting and registration obligations (e.g. when setting up an information network system), as well as employee co-determination rights when used in companies. The user shall bear the responsibility for the legally compliant use of the product.



The above information must be observed in accordance with the manufacturer's liability for its products as defined in the Product Liability Act and must be communicated to operators and users. Non-compliance releases EVVA from any liability.

Unauthorised use, repair work or modifications not authorised by EVVA and improper service may lead to malfunctions and must therefore be avoided. Changes not expressly approved by EVVA will result in the loss of liability, warranty and separately agreed guarantee claims.



Keep the system components away from small children and pets. Risk of suffocation due to small parts that can be swallowed.





EVVA provides **architects and consulting institutions** with all the product information they need to comply with their information and instruction obligations under the Product Liability Act.

Specialist retailers and installers must comply with the information in EVVA documentation and they must pass on such information to customers, where applicable.

Additional information can be found in the Xesar product catalogue:



https://www.evva.com/uk-en/xesar

1.2 EVVA Support

With Xesar, you have a sophisticated and tested locking system at your disposal. If you require additional support, please contact your EVVA partner directly.

You can access the list of certified EVVA Partners here:



https://www.evva.com/uk-en/retailer-search/

Activate the "Electronics Partner" filter option to search specifically for EVVA partners who sell electronic EVVA locking systems and have qualified specialist knowledge.



http://support.evva.at/xesar/en/

General information on Xesar can be found here:



https://www.evva.com/uk-en/xesar



1.3 Explanation of symbols

The following symbols are used in the system manual to support illustration:

Symbol	Meaning
	Attention, risk of material damage in the event of non-compliance with the corresponding safety measures
(!)	Notices and additional information
	Hints and recommendations
×	Avoidance of errors or error messages
Option	Options
>	Links
<u>>></u>	Steps with instructions for action



Installation instructions for server with Ubuntu 22.04

The following provides information on preparing the Xesar 3.2 installation on a server that uses the Ubuntu 22.04 operating system.



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The creation of the necessary IT and server environment is not part of these installation instructions. It must be provided by the customer and is not the responsibility of EVVA.

Check the system requirements for Xesar 3.2. Before installation, you must confirm that the system requirements for Xesar 3.2 are met in accordance with the project checklist and system manual.

Follow the current project checklist from EVVA:



https://www.evva.com/uk-en/xesar/



We strongly recommend that you only carry out the Xesar 3.2 installation in close cooperation with the customer's responsible IT administrator.

2.1 Requirements

The following requirements must be met for successful installation of Xesar 3.2 on a server with the Ubuntu 22.04 LTS Server operating system:

- Xesar Admin PC now called "Windows Admin Client" WIN 10/11 PRO with Installation Manager
- Server with Ubuntu 22.04
- Xesar 3.2 system requirements are met
- Supported hypervisor for virtualisation: VMWare and Windows Server from 2016. Nested virtualisation is not supported here.

2.2 Installing Ubuntu

The following instructions apply to 22.04

Download Ubuntu 22.04



http://releases.ubuntu.com/





Tutorial for Ubuntu installation

https://tutorials.ubuntu.com/tutorial/tutorial-installubuntu-server#0

Bootable USB stick

<u>https://tutorials.ubuntu.com/tutorial/tutorial-create-a-usb-</u> <u>stick-on-windows#0</u>

- >> Follow the instructions during the installation
- >> While installing Ubuntu, select **open ssh server** during the final installation step.

If this option is not available, it can be installed afterwards in the Linux Console with the command **sudo apt install openssh-server**. If "sudo without password" (see below) has not yet been configured, then the user password will be requested.

- To set up sudo without a password, enter the following commands into the Linux Console:
 - Enter the command **sudo visudo** for the password prompt for sudo (Password is requested and the file /sudoers.d will open)
 - Scroll to the end of the opened file and type the command username ALL=(ALL) NOPASSWD: ALL below the final line:

@includedir /etc/sudoers.d shqadmin ALL=(ALL) NOPASSWD: ALL

- >> Save file (Ctrl+O and then ENTER)
- Close file (Ctrl+X)
- >> Check that the command **sudo visudo** now works without a password.



In the Linux console, create an SSH keypair using the command ssh-keygen -t ed25519.

The ssh key is stored by default at /home/user/.ssh on the Linux server. In our example, the user is **shqadmin**, which we created when setting the Linux installation.

In the next step, you need to add the public key (.pub) in the Linux console of the key pair created to the authorised keys on the Linux server.

- >> Using the first command line, go to the previously created directory
- >> Using the second line, add the key:
 - > cd /home/user/.ssh
 - > cat id_ed25519.pub > authorized_keys

shqadmin@test:~\$ cd /home/shqadmin/.ssh shqadmin@test:~/.ssh\$ cat id_ed25519.pub > authorized_keys

- Install Docker:
 - » sudo apt install docker.io
- Install a program (e.g. putty or WINSCP) on the Windows Admin Client to transfer data securely from the client to the server and vice versa. In our example, WINSCP is used.





>

Freeware program

https://winscp.net/eng/download.php

Log in using WINSCP on the server

Transfer protocol **1** is SFTP

Computer name **2** is the IP address of the server (can be found in the Linux console with the command **ifconfig**)

Port **3** is 22 (standard)

User and password ④ correspond to the user and their password on the Linux server



Copy the private key id_ed25519 to the Windows Admin Client using WINSCP. (In our example from /home/shqadmin/.ssh ③ on the server to C:/ Program Files\EVVA\Xesar3 Installation Manager 2.0\runtime\bin ④to the Windows Admin Client

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ub18041	File folder	03.03.2020 12:38:49							
ub16test	File folder	26.11.2018 10:37:51							
Startmenü	File folder	31.05.2019 10:56:10							
SendTo	File folder	31.05.2019 10:56:10							
Searches	File folder	04.07.2020 19:42:33							
P Saved Games	File folder	04.07.2020 19:42:33							
Sahil Export	File folder	26.06.2019 13:25:13							
rock	File folder	28.03.2019 12:21:35							
Recent	File folder	31.05.2019 10:56:10							
putty	File folder	09.10.2018 11:02:33							
Pictures	System folder	04.07.2020 19:42:33							
Photon3	File folder	26.11.2019 14:56:19							
OneDrive	System folder	04.01.2018 12:38:25							
Netzwerkumgebung	File folder	31.05.2019 10:56:10	,						
		>							

>> Open the Windows Console



(with cmd in search, right-click as Admin)

Use the command cd C:/Program Files\EVVA\Xesar3 Installation Manager 2.0\runtime\bin in the Windows Console to change the directory where the private key id_ed25519 was stored

2.3 Create Docker Machine

Enter the command to create the Docker Machine in the Windows Console (also from the directory in which the private key is located)

C:\Users\Administrator>cd C:\Program Files\EVVA\Xesar3 Installation Manager 2.0\runtime\bin C:\Program Files\EVVA\Xesar3 Installation Manager 2.0\runtime\bin>docker-machine --debug create --driver generi --generic-ip-address 192.168.8.10 --generic-ssh-key id_ed25519 --generic-ssh-user shqadmin hostname

The general command is:

docker-machine create --driver generic --generic-ip-address (IP server address) --generic-ssh-key (name of the public key) --generic-ssh-user (name of the user for whom the Ubuntu server was created) (name of the Docker Machine)

Command part	Explanation
docker-machine create	is the general command to create a Docker Machine
driver generic	is the generic driver for installing Docker on the server
generic-ip-address	is the IP address of the server
generic-ssh-key	is the description of the private key used. (If execu- ted from the directory in which it is stored. For a dif- ferent directory, the entire path must be entered.)
generic-ssh-user	is the description of the ssh user ("shqadmin" in our example). After a space, this is followed by the name of the Docker Machine (xs3ubuntu1804 in our example).





The whole docker-machine create process takes approx. 2 to 10 minutes, depending on the computer.

If an unexpected error message occurs, you can cancel the process by exiting the Windows Console. Then reopen the Windows Console and delete the incorrectly set up Docker Machine with the command docker-machine rm "name" (name is the assigned name). Example: docker-machine rm xs3ubuntu1804

Then enter the command docker-machine --debug create --driver generic --generic-ip-address (IP address of the server) --generic-ssh-key (name of the public key) --generic-ssh-user (name of the user for whom the Ubuntu Server is created) (name of the docker machine). Use the extension --debug to obtain a precise error report.

If an error message relates to the **ssh connection**, check the user again with **sudo** without password or check the storing of the **ssh-keys**.

Another source of error with regard to ssh is the folder C:\Windows\System32\ OpenSSH. In the event of an error (ssh exit status), rename it to ...**old**OpenSSH.

After successfully creating the Docker Machine, use the command docker-machine Is in the Windows Console to check whether the Docker Machine is running.

VAME	ACTIVE	DRIVER	STATE	URL	SWARM	DOCKER	ERRORS
Xesar3		generic	Running	tcp://192.168.8.101:2376		v18.09.8	
xs3photon2		generic	Running	tcp://192.168.8.136:2376		v18.06.2-ce	
xs3ubnt18044		generic	Timeout				



2.4 Xesar 3.2 installation

>> Download the latest Xesar 3.2 software

https://www.evva.com/uk-en/products/electroniclockingsystemsaccesscontrolsystems/xesar/download-xesar-software/

- Connect coding station
- Start the Installation Manager
- Select Manage Xesar installations on server → Manage installations
- Select the tab Admin Card
- Select the required card reader I
- Load the Admin Card 3
- Click on the button Oto read in the number of the Admin Card
- Select the tab Configuration
- Select the Docker Machine III
- >> Select the tab **Installations**
- >> Using the "+" button, add a new system
- Select the name **①**, the port **②** and the Docker Machine **③**

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If you are updating Xesar 2.2, enter the database path for the import. After creating the system, you can start and commission the system (see system manual).

2.5 Data backup

The following data must be saved:

• Backup from the Installation Manager (Installation \rightarrow pen symbol \rightarrow Backup)

• Windows Admin Client

[XesarUser] is a placeholder for the Windows user (e.g. admin) who performed the Xesar 3.2 installation

- C:System\Users\[XesarUser]\.xesar
- C:System\Users\[XesarUser]\.xesar-cs
- C:System\Users\[XesarUser]\.docker
- ssh key



Manual and automatic data backups (backup) can be performed in the Installation Manager.

VM server

- Snapshot of the VM after each large or important change
- Generally a mirroring of the whole partition, preferably the whole hard drive on which the Xesar VM (for example Ubuntu) is installed as is usual with servers
- ssh key
- Physical server
 - entire hard drive

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