



# HOME

## Help Center

Version: 1.0

Exported on: 22 February, 2024

To obtain the latest documentation for Lawo products, please visit:

<https://docs.lawo.com/>



### Copyright

All rights reserved. Permission to reprint or electronically reproduce any document or graphic in whole or in part for any reason is expressly prohibited, unless prior written consent is obtained from the Lawo AG.

All trademarks and registered trademarks belong to their respective owners. It cannot be guaranteed that all product names, products, trademarks, requisitions, regulations, guidelines, specifications and norms are free from trade mark rights of third parties.

All entries in this document have been thoroughly checked; however no guarantee for correctness can be given. Lawo AG cannot be held responsible for any misleading or incorrect information provided throughout this manual.

Lawo AG reserves the right to change specifications at any time without notice.

© Lawo AG, 2023



## Table of Contents

1	HOME - Frequently Asked Questions.....	5
2	HOME - Health Issues and their potential Cure .....	7
2.1	Table of Issues .....	7
2.2	How Classes are treated .....	8



In this section, we are collecting FAQs and answers to them. Also, you will find some helpful HowTos.

- [HOME - Frequently Asked Questions](#)
- [HOME - Health Issues and their potential Cure](#)



# 1 HOME - Frequently Asked Questions

## What OS is running on machines for HOME?

Ubuntu Server LTS Base image & latest update packages applied at time of shipping. The exact version of the OS is defined per release and published in the release notes. The current version of **Ubuntu is 20.04**. Other versions of Ubuntu or OS derivatives are currently not supported or confirmed compatible with HOME.

## How is the Ubuntu OS supported?

Enterprise support for Ubuntu is available through <https://ubuntu.com/support>. It is also possible to check the free Ubuntu community for help (<https://ubuntu.com/support/community-support>)

## Which applications and services are running on the OS?

For a list of services and applications running on a HOME server, please refer to [this list](#).

## Which network ports are used by HOME?

Default ports in use are listed [here](#). Some can be customized at installation time if required

## How is the server hardware supported?

HOME servers supplied by Lawo are coming with 36 (12+24) months of ProSupport. This is valid worldwide and is realized through local Dell partners. You can check your servers service status via the DELL Support website. For details, please refer to [this page](#).

## Can Antivirus tools be used with HOME servers?

In principle, no general restrictions apply for antivirus tools running on HOME machines. However, some specific considerations are recommended before applying antivirus measures:

- Ubuntu is Debian based, so if the antivirus tool provides support for Debian it should generally mean it will work with Ubuntu.
- Antivirus tools can be very resource hungry, depending on their settings. Make sure, that resource intense processes, such as schedules for global virus scans, do not collide with high availability requirements of HOME, such as top-of-the-hour processes.

## Can other software tools be installed and run on HOME servers?

We understand that numerous 3rd party tools are in use to measure IT system behavior under stress and to check these systems for vulnerabilities. It is impossible for Lawo to monitor all these tools and maintain a compatibility list for HOME.

Instead, we recommend the careful use of such tools, taking into account the individual operating times and requirements for the availability of HOME. In principle, it is possible to install and operate tools in parallel with HOME, but it is important to ensure that HOME runs smoothly. Operate concurrent tools during idle times of HOME, and make sure they run idle when HOME is active. The responsibility for system setup and the transparency of pointing out competing applications in the event of an error lies with the system operator.

## Are fibre network connections supported on the HOME servers?

The specified DELL servers provide a dual SFP cage module plus 4 onboard RJ45 network connectors. Lawo does not provide SFPs for the fibre cages, but they can be sourced through the DELL website. The SFP module is based on a broadcom chipset to provide maximum compatibility.

## Can HOME run on other host machines, such as virtualized environments or host servers provided through the customer?

Home is designed as an application existing of many microservices to run on various host platforms, including physical server clusters or data center host platforms. Technically, a HOME instance could also be packed into a virtual machine. However, this option is not recommended until further notice.



Until further notification, these current confirmed hosting setups are binding:

- non-redundant instances of HOME (single leg) on mc<sup>2</sup> gateservers
- redundant instances of HOME (3-leg) on dedicated DELL R3x0 server cluster.

It is possible to have HOME running on DELL servers sourced through the customer, if they comply with [this specification](#).

#### **Does Lawo harden the servers?**

Lawo does not provide any specific server hardening at present. During installation, generic user credentials are configured. These can be changed at any time by the customer. After installation of a HOME system, network settings are configured to block outgoing or incoming internet connections.



## 2 HOME - Health Issues and their potential Cure

HOME indicates system health status at runtime. This gives users of HOME a direct feedback if infrastructure components or HOME services face any issues, which may cause scheduled or immediate interaction.

HOME's health page shows a list of current issues. Issues are shown with a basic descriptor. If you hover your mouse cursor above this descriptor, you will be prompted with additional information and hints how to apply potential cure.

### 2.1 Table of Issues

Event	Class	Name	Help
device/presence	critical	Device	HOME is no longer receiving heartbeats from this device. This could be due to networking problems or the device being shutdown.
dhcp/pool	critical	Dhcp pool	This DHCP address pool contains very few unallocated address This may stop new devices or services from operating. Increase the pool size or add another pool
device/ethernet	critical	Ethernet	This Ethernet interface is down, check cabling. If the interface is not needed ensure DHCP is disabled and the IP address is 0.0.0.0
device/receiver/both	critical	Receivers	Both the Red and Blue IP receivers are reporting an error.
device/health/critical	critical	Hardware	Device hardware is reporting an error.
device/ptp	critical	PTP reference	Precision Time Protocol reference is missing.
switch/connection	critical	Switch	HOME cannot connect to this Network Switch. Check the credentials stored in HOME and network connectivity to the switch.
device/redundancy	debug	Redundant Groups	Redundant group configuration is inconsistent between HOME and its Devices.
service/cpu	debug	CPU load	Service's CPU use is greater than expected.
service/memory	debug	Memory load	Service's memory use is greater than expected
etcd/writes	debug	ETCD slow writes	ETCD is reporting slow disk writes. Check the server's CPU and Disk performance.
etcd/reads	debug	ETCD slow reads	ETCD is reporting slow disk reads. Check the server's CPU and Disk performance.
etcd/cpu	debug	ETCD slow comms	ETCD is reporting slow inter-server links. Check server's CPU and network performance.



Event	Class	Name	Help
nats/bytes-pending	debug	NATS pending data	NATS has significant data queued for this connection. Check remote server's performance.
nats/slow-consumer	debug	NATS slow consumers	NATS has messages pending for this connection. Check remote server's performance.
service/performance	debug	Service performance	The HOME service is overloaded.
service/auth/provider	debug	Authentication	The Authentication service cannot connect to this Back-end provider. Check the stored provider credentials and network routing.
service/auth/presence	debug	Authentication	No Authentication services available in HOME.
device/busy	warning	Restarting	This devices is rebooting as a result of a user request, for example a device configuration change.
device/receiver/red	warning	Red Receiver	The Red (primary) IP receiver is reporting an error.
device/receiver/blue	warning	Blue Receiver	The Blue (secondary) IP receiver is reporting an error.
device/health/warning	warning	Hardware	Device hardware is reporting a warning.
etcd/replication	warning	ETCD instances	Fewer replicated ETCD servers available than specified in the HOME configuration.
nats/rtt	warning	Network latency	The Round Trip Time to this device or server is higher than expected. This is caused by network infrastructure delays. Expect this server or device to respond more slowly than usual
nats/replication	warning	NATS instances	Fewer replicated NATS servers available than specified in the HOME configuration.
service/replication	warning	Service instances	Fewer replicated HOME service instances available than specified in the HOME configuration.

## 2.2 How Classes are treated

HOME provides two destinations for Log Data. To understand, which data is kept where, please refer to this table.





Log Destination	Classes
Health Page in HOME	<b>Critical</b> <b>Warning</b>
Application Log Storage	<b>Critical</b> <b>Warning</b> <b>Information</b> Debug