



Frequently asked questions

From hardware to mobile networks and licensing, your questions are answered here

GENERAL

WHAT IS VOLO?

VOLO is an innovative cloud based access control solution, comprising of Access Control Units (ACUs) which connect to the door locking equipment and cloud hosted software which communicates with ACUs to allow users to administer and control their access control requirements via any browser enabled device from anywhere in the world.

WHO IS VOLO?

VOLO is a brand and registered trademark of Kernot Management Consultancy Ltd. The hardware aspect of VOLO is manufactured by Gendis (a Paxton company) and the hosting service is supplied by Amazon Web Services.

HOW CAN I BUY VOLO?

VOLO is only available via Kernot Management Consultancy Ltd.

WHERE IS VOLO MADE?

VOLO is designed and manufactured in the UK.

WHAT LANGUAGES ARE SUPPORTED?

Currently only English is supported for the hosting site software and documentation

PRODUCT

WHAT HAPPENS IF I NEED MORE THAN 50 READERS ON A SINGLE SITE?

More Master ACUs, each with up to 24 Slave ACUs can be added to act as a single site solution. However: an additional annual Hosting Licence is required per Master ACU.

IS THE VOLO MASTER CONTROL UNIT AVAILBLE WITHOUT THE GSM/GPRS CAPABILITY?

No, not at present. However, the SIM on the standard GSM/GPRS Master Controller does not need to be activated for the system to work, as the controller can be connected via an Ethernet connection.

IS THE VOLO MASTER CONTROL UNIT AVAILABLE WITH WIFI?

No, not at present. However, it is theoretically possible to plug the Master into a wi-fi transmitter, but specific Wi-Fi transmitters have not been tested.

CAN I EXTEND THE ANTENNA FOR THE MASTER?

Yes, a 2.5m antenna cable is provided with each Master ACU, but a longer length antenna and specialist antennas can be used for weak signal areas.

WHAT ARE THE COMMUNICATIONS BETWEEN THE VOLO ACU AND THE SERVER WHEN CONNECTED OVER A NETWORK?

The hardware needs to make an outgoing TCP/IP connection on port 2215. The communication is TCP/IP and the broker maintains the connection, so no incoming rule is required.

CAN THE GSM MODULE BE MOVED A DISTANCE FROM THE VOLO ACU?

Yes, it can be moved away but the cable carries power as well as RS485 signals so it should be limited to 10 metres. If power is provided locally to the GSM module it can be extended to over 100m.

CAN I USE A STAR/RADIAL TOPOLOGY ON RS485 TO SLAVE ACUS?

No, the Master ACU has a single RS485 output and the Slave has a single RS485 input and a single RS485 output allowing 500m between each ACU

WHAT HAPPENS IF THE CONNECTION IS LOST BETWEEN THE ACCESS CONTROL UNITS AND THE CLOUD?

The local Access Control Units (Masters and Slaves) will continue to operate as normal, but changes to access rights will not be enabled. As soon as the connection is restored, the system will automatically synchronise handover all stored events to the cloud. The controller can store up to 4,000 events locally.

IF A SPECIFIC TYPE OR BRAND OF READER IS NOT LISTED AS COMPATIBLE, CAN THEY BE ADDED?

Yes, VOLO can support all clock and data reader as well as Weigand readers (up to 64bit). If you wish to check this further please contact us on info@kernotmanagement.co.uk or 01896 292200.

WHY IS VOLO SO FAST AND RELIABLE OVER A MOBILE NETWORK COMPARED WITH SOME OTHER SYSTEMS?

There are several reasons for this, the big one being that VOLO is designed from the ground up to do this. Nearly all the competitor systems are older technology with GSM modems bolted on and constantly poll control units even when there is no activity. The communications protocols used, essentially serial based protocols, are not designed for efficiency.

In contrast, VOLO uses multiple publish/subscribe brokers in the cloud with the message protocol, Message Queue Transport Technology (MQTT), developed by IBM for the Internet of Things (IoT). It runs over standard TCP/IP networks and is a very efficient protocol for short messages and deals well with unreliable networks managing and restoring lost connections at the broker level, relieving the application of this duty. VOLO doesn't poll connected devices as comms are 'event driven'; so apart from an occasional heartbeat to check on-line status the control units only communicate when they have something to say. This considerably reduces the congestion in large systems.

In addition, the VPN and load balancers play their part. The VPN in restricting access (usually pings) from other devices and the load balancer in spreading the load created by connecting multiple units to multiple brokers.

OPERATION & SYSTEM

HOW MANY DOORS CAN I HAVE ON A VOLO SYSTEM?

Each Master Control Unit can control 2 readers and 2 releases (i.e. 1 door with read-in and read-out or 2 doors with read-in). Up to 24 additional VOLO Slave Access Control Units can be added per Master to allow up to 50 readers/doors. Multiple Master units can be used on a single site and logically grouped for systems larger than this.

HOW MANY EVENTS DOES A CONTROLLER STORE LOCALLY, JUST IN CASE THERE IS A TEMPORARY BREAK IN COMMS WITH THE HOST?

4,000

HOW MANY EVENTS DOES THE VOLO SYSTEMS STORE?

In excess of 1,000,000

HOW DO I ENROL USERS AND MANAGE CARDS?

Via a USB card enrolment reader attached to a compatible PC connected to VOLO hosting website or by manual entering of card details, including bulk upload of contiguous card numbers. Card numbers can be extracted by requesting the user to present their card on-site.

DOES VOLO SUPPORT ANTI-PASSBACK?

No, not at present

IS IT POSSIBLE TO IMPORT A USER DATABASE?

Yes this can be achieved and the file type of the existing database must be a CSV file format.

LICENSES

THE LICENCES ONLY LAST 12 MONTHS – WHAT HAPPENS IF THE HOSTING LICENCE EXPIRES?

The Master Access Control Unit and connected Slaves will continue to operate, but access to the controller via the VOLO hosting service will cease, preventing all access to the ACUs including changing users, access levels etc. The purchase of a 12-month licence will restore connections.

At the time of an expired license we must highlight that all events are not retained in the system so the events during a period of no license cover are lost.

DO I NEED A VOLO LICENCE FOR EVERY SLAVE UNIT?

No, only the Master Access Control Unit.

HOW LONG DOES THE LICENCE LAST?

Both the Hosting Licence and the SIM Airtime Licence are 12-month contracts, after which they must be renewed for the system to remain operational.

HOSTING

CAN I CONNECT DIRECTLY TO THE ACCESS CONTROL UNITS WITHOUT GOING VIA THE WEB HOSTING?

No, operation is only available via the Internet and logging into the VOLO Hosting. Only engineering updates can be made locally.

IS THE VOLO HOSTED DATA CENTRE SECURE?

Amazon Web Services (AWS) are ISO 27001 certificated and validated as a Level 1 service provider under the Payment Card Industry (PCI) Data Security Standard (DSS). AWS undergo SOC 1 audits and are evaluated at the Moderate level for Federal government systems as well as DIACAP Level 2 for DoD systems (Jan 2014).

For more information: <http://aws.amazon.com/security>

IS ACCESS TO VOLO PASSWORD PROTECTED?

Access to the VOLO software is via a 6-digit minimum password with strength verification (September 2019 update). Users are timed out after 15 minutes of inactivity. Users have restricted access to viewing and administration depending on defined user /operator rights.

WHERE IS THE VOLO SYSTEM HOSTED?

Amazon Web Services: <http://aws.amazon.com>

SIM AND MOBILE DATA

IN WHICH COUNTRIES WILL THE GSM SIM WORK?

European Union only.

Please contact us if operation outside of this region is required as SIM compatibility and data restrictions might apply.

HOW DO I CHECK THAT I HAVE MOBILE COVERAGE WHERE I WANT TO INSTALL A VOLO MASTER CONTROLLER?

VOLO offers a cell information strength indicator function to indicate the chosen/preferred network and the available cells for the device to connect to. Plus it will relay live updates on the signal strength at all times.

WHAT MOBILE NETWORK DO THE SUPPLIED VOLO SIMS USE?

SIMs are 'roaming' and switch to the strongest and most stable available network.

CAN I USE THE SIM PROVIDED WITH THE MASTER ACCESS CONTROL UNIT IN ANOTHER PRODUCT (SUCH AS A SMARTPHONE)?

No, the licences must only be used with the VOLO Master Access Control Units. Use in other devices could result in penalties or GSM SIM card cancellation

CAN I USE MY OWN SIM CARDS IN VOLO MASTER ACUS?

No, the SIMs are programmed at the factory and come pre-loaded in the Master ACU are specific for that Master Access Control Unit

WILL I GET AN UNEXPECTED AND HIGH BILL IS I USE MY GSM ACCESS CONTROL SYSTEM A LOT?

No, all the data usage that VOLO requires is included in the annual charge. N.B. the SIM should not be transferred to another VOLO Master Access Control Unit and must not be used in any other device. Please refer to our terms and conditions for more information.

For any further questions please contact ourselves on:

info@kernotmanagement.co.uk

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