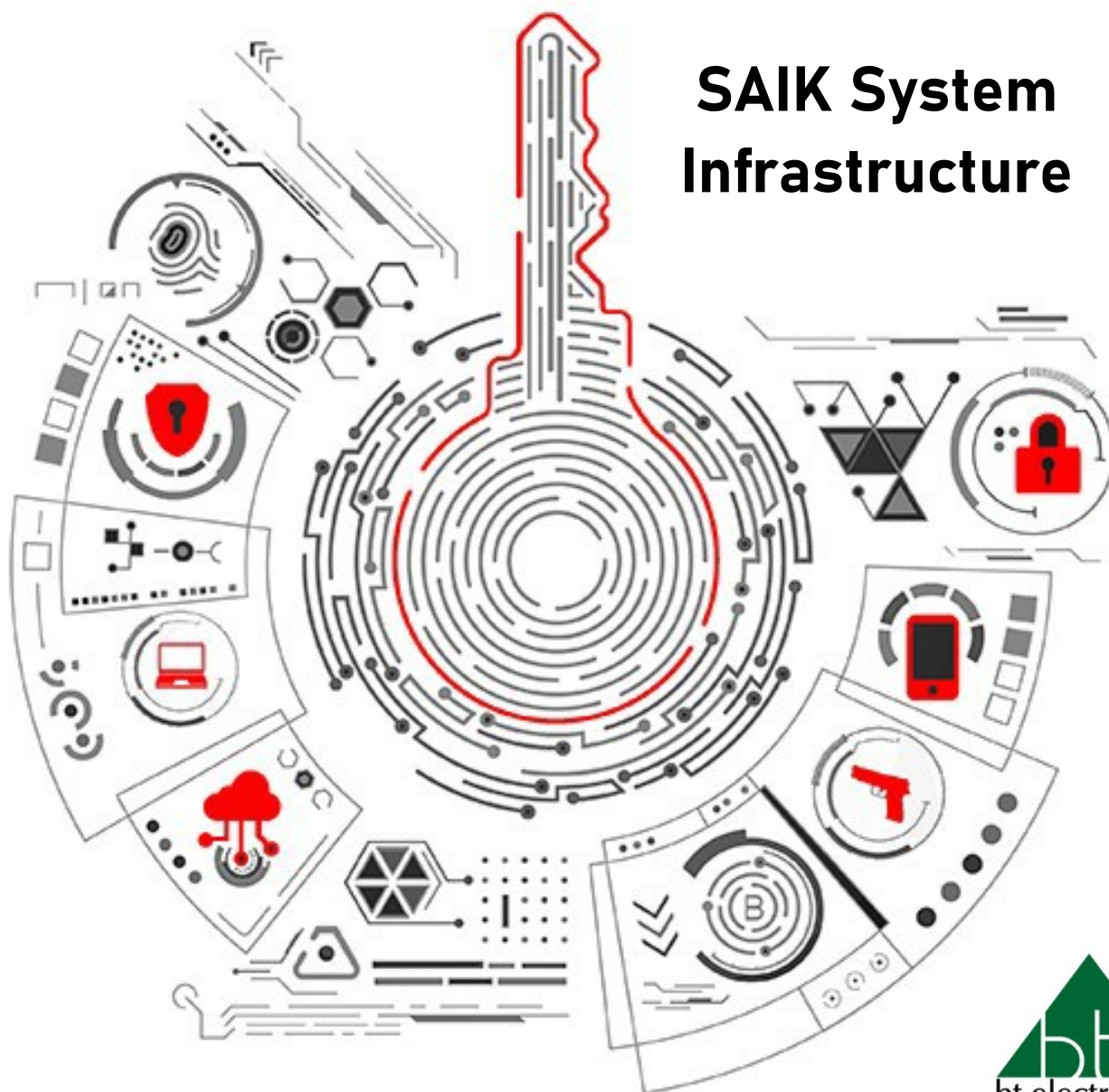




CABINETS FOR KEYS,  
ITEMS AND WEAPONS



## SAIK System Infrastructure

## SAIK system infrastructure

SAIK cabinets form an integral system with their own Central Database server, the role of which can be performed by the cabinet itself. The server's task is to store and archive all data and events throughout the SAIK system. Integration of all elements of the SAIK system is carried out via a local Ethernet network. This enables remote management of the device and subsequent, possible expansion of the infrastructure with additional cabinets integrated within one system. The SAIK system can be managed from any computer with SAIK software installed and connected to a local Ethernet network. Devices operating in the SAIK system have a permanently assigned IP address (the devices do not support DHCP) assigned by the Ordering Party.

If the number of cabinets installed in the building does not exceed 5, one of the installed cabinets can successfully play the role of a server. If the number of devices is 6 or more, it is recommended to use an external or virtual server, above 9 devices it is required.

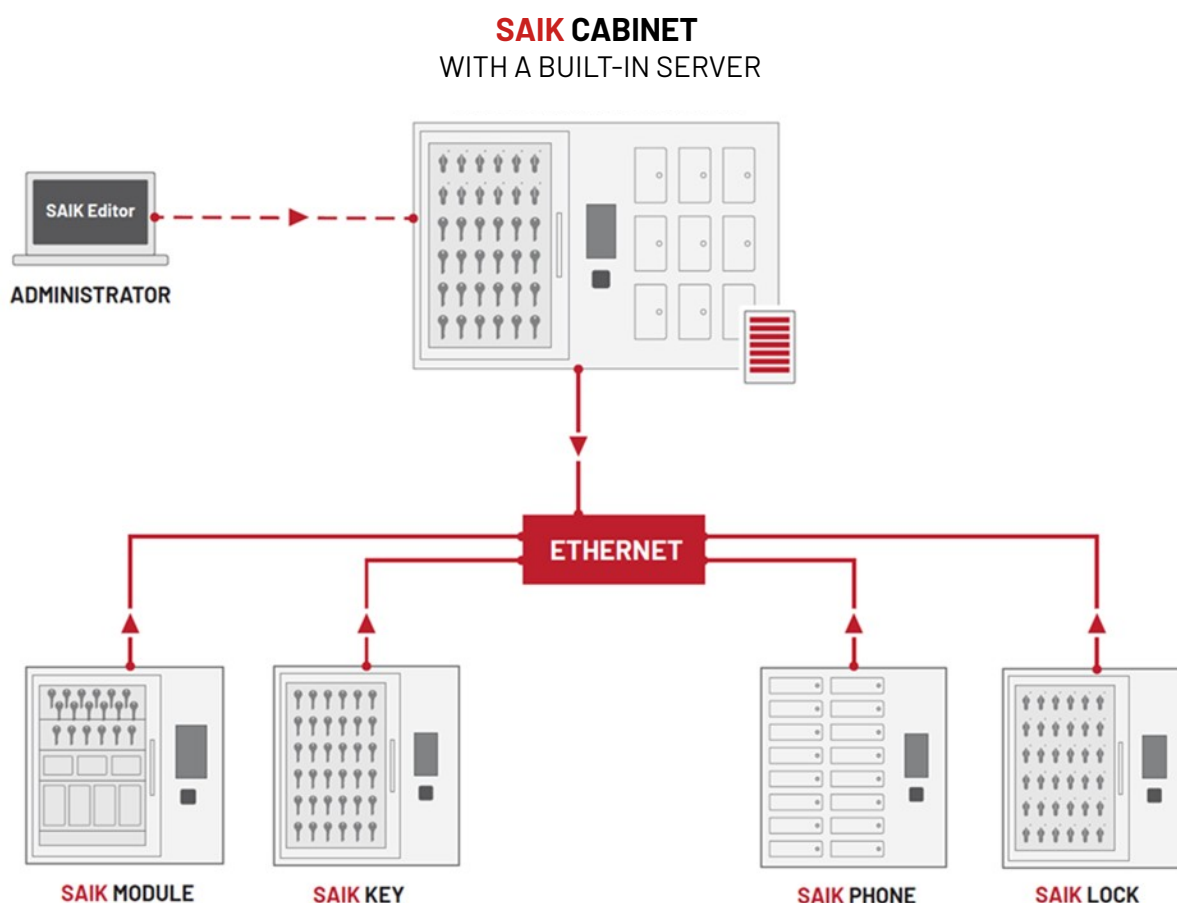


Figure 1 Diagram of an example infrastructure of the SAIK system, in which the role of the server is played by the cabinet itself - up to 5 devices.

## External SAIK central database server

External SAIK central database server - typical configuration	
<b>Casing</b>	The server is mounted in a 1U server rack
<b>Processor</b>	Intel® Xeon® E-2300 processor with up to 8 cores Intel® Pentium® processor with up to 2 cores
<b>Chipset</b>	Series Intel® C256
<b>RAM</b>	UDIMM: 128 GB
<b>RAID controller</b>	S150
<b>RAID configuration</b>	Boot-optimized storage subsystem (BOSS-S1): Hardware RAID with 2 x 240 GB or 480 GB M.2 SSD Internal dual SD card or USB module
<b>HDD disks</b>	Up to 4 hot-swappable 3.5" SAS/SATA HDDs/SSDs, max. 30.72 TB Up to 2 x 3.5" SAS/SATA HDD/SSD with cables, max. 15.36 TB
<b>Network card</b>	2 x Gigabit Ethernet 10/100/1000 (TCP/IP, iSCSI, Wake On Lan)
<b>Graphic card</b>	Integrated graphics card (16 MB)
<b>Ports</b>	<b>Network options:</b> 2 LOM cards 1 GbE <b>Ports on front panel:</b> 1 separate Micro USB connector for iDRAC Direct, 1 USB 2.0 port <b>Ports on the back of the case:</b> 1 USB 2.0 port, 1 USB 3.0 port, 1 VGA connector <b>Ports internal:</b> 1 USB 3.0 port (optional)
<b>Operating system</b>	Canonical® Ubuntu® Server LTS, Citrix® Hypervisor, Microsoft® Windows Server® z Hyper-V, Red Hat® Enterprise Linux, SUSE® Linux Enterprise Server, KVMware® ESXi®

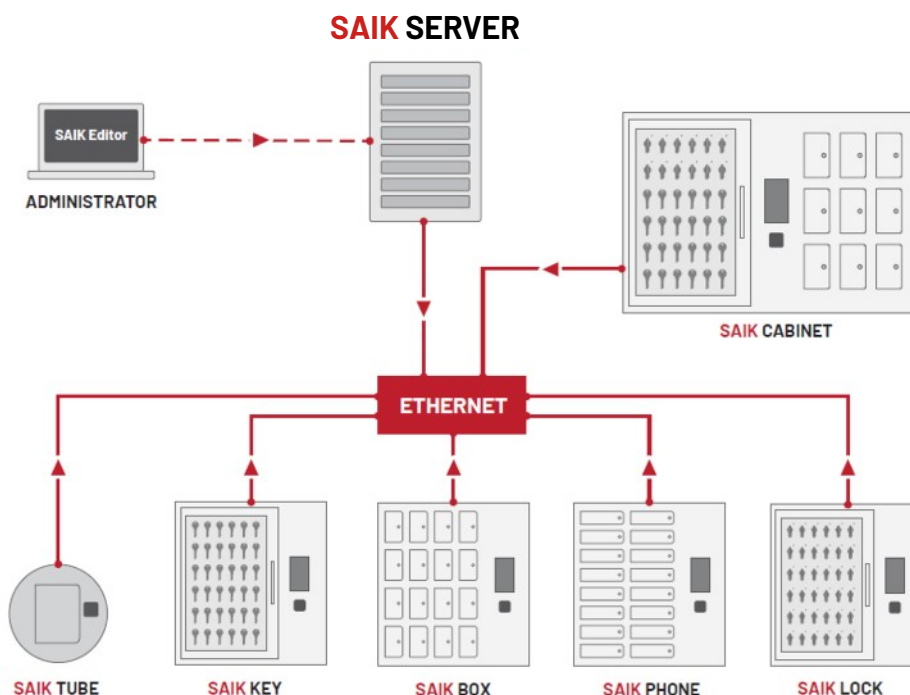


Figure 2 Diagram of an example infrastructure of the SAIK system with an external server - recommended for 6 devices, required for 9 devices.

## SAIK SYSTEM INFRASTRUCTURE

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# SAIK Virtual Server Requirements

## MINIMUM HARDWARE REQUIREMENTS

Processor minimum 1 vCPU 1.5GHz x64 Memory minimum 4GB RAM Disk minimum 100GB for applications and data after installing the system Network card

## SYSTEM VERSION REQUIRED

System version: CentOS 9, RockyLinux, Debian 11, Kernel version minimum 3.10  
No special kernel or system function settings are required.

## MOUNTING POINTS

Mount point	Description
<b>/opt/</b>	Mounting point min. ext3 with a size of at least 102400MB = 100GB This is a mount point containing the entire server structure along with the server application

## LIST OF APPLICATION ACCOUNTS FOR THE SAIK SYSTEM

Account	Description
<b>saik_net</b>	Application account for the saik_net application
<b>postgres</b>	Application account for the postgres database application
<b>lighttpd</b>	Application account for the lighttpd web server application

## LIST OF TECHNICAL ACCOUNTS

Account	Description
<b>saikadmin</b>	Administrative account with sudo privileges, user account with application privileges: saik_net, postgres, lighttpd and the entire /opt/ file system

## NETWORK REQUIREMENTS

The server requires a configured **loopback** virtual interface to be able to establish a connection to the database at the IP address 127.0.0.1

The server uses the following ports to communicate with client devices: Port	Service
<b>443</b>	TCP/ https
<b>22</b>	TCP/ ssh
<b>5428</b>	TCP/ saik(SAIK System protocol)

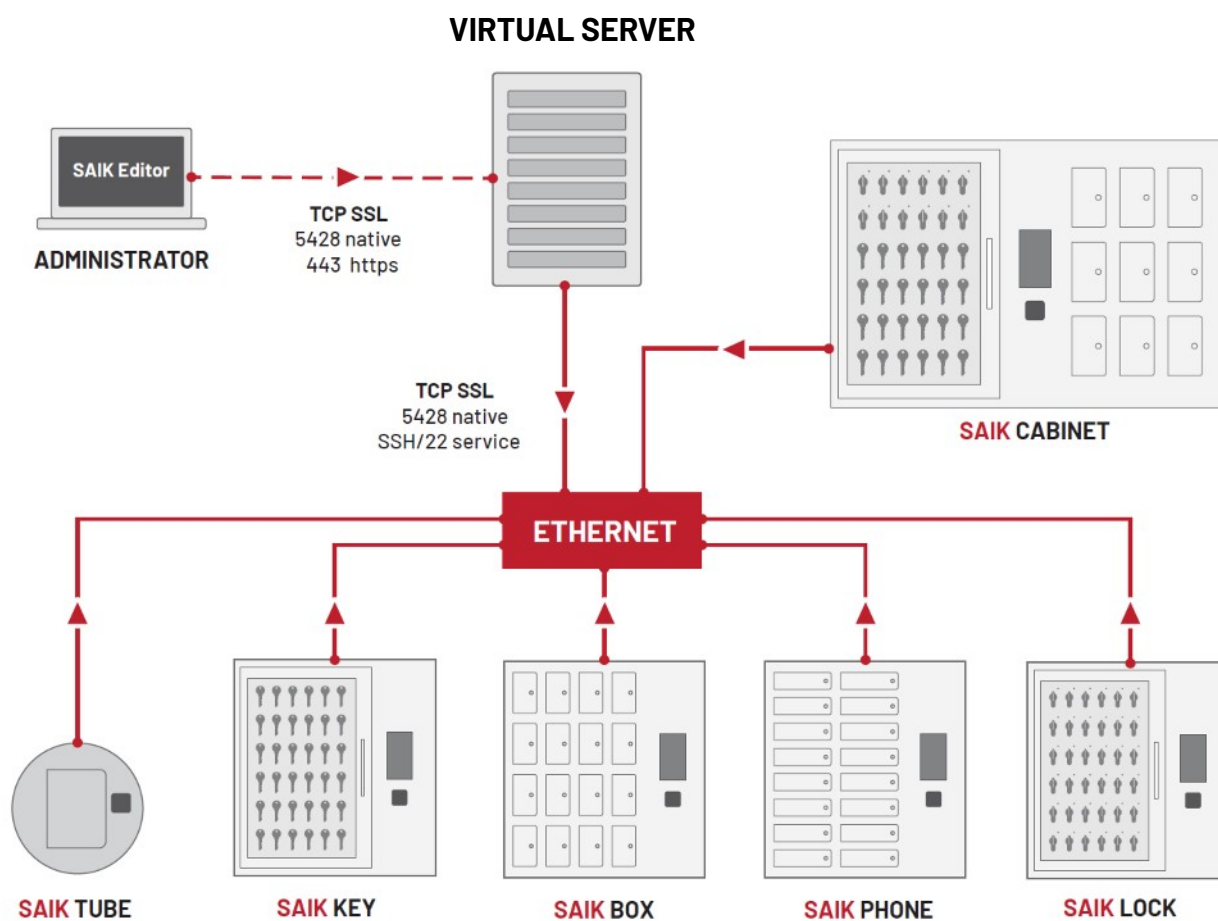


Figure 3 Diagram of the SAIK system infrastructure with a virtual server  
- recommended for 6 devices, required for 9 devices.