![ABUS - Security Tech Germany]

TECTIQ
IT-ADMINISTRATION

Information & Checkliste

PROJECT

Object/project:

Contact IT:

Date of commissioning:

Specialist retail partner:

Contact person for specialised trade partners:

PRELIMINARY INFORMATION FOR IT CONTACTS

TECTIQ is a digital locking system. It uses Data on Card technology, whereby access authorisations are written to the employees' transponders. For greater security, the transponders have an adjustable validity (e.g. 24 hours). Employees update the authorisations and extend the validity of the transponder at so-called update terminals.

The access control center serves as the control unit and database for the TECTIQ system. Administration is carried out using the TECTIQ Access Manager software.

A network connection is required to access the access control center using the TECTIQ Access Manager and to connect the update terminals. The system can be operated both offline, i.e. only in the local network, and online (access via the Internet)*.

All information as well as the system instructions and the installation file for the „TECTIQ Access Manager" (desktop software) can be found online at: www.abus.com/product/TTC010000

*The full range of TECTIQ services is only available with an online network connection.

SYSTEM SETUP **WITH** UPDATE TERMINAL (ONLINE)
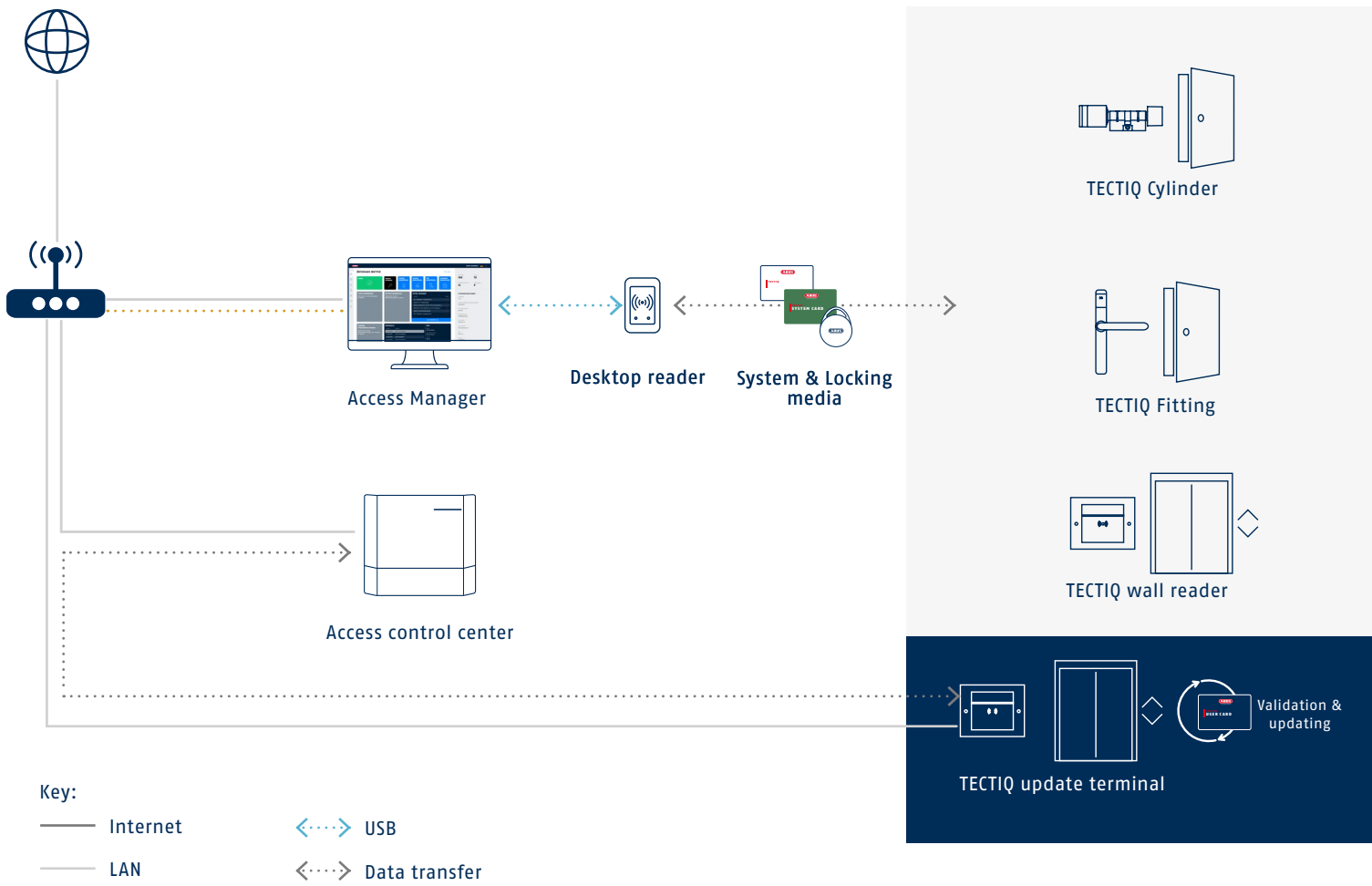
TECTIQ Cylinder

TECTIQ Fitting

TECTIQ wall reader

Access Manager

Desktop reader

System & Locking media

Access control center

Validation & updating

TECTIQ update terminal

Key:

——	Internet	<····>	USB
——	LAN	<····>	Data transfer

Access Manager, desktop reader, locking and system media, access control center
TECTIQ cylinder, TECTIQ fitting, TECTIQ wall reader
Operation with update terminal
Validation & updating
TECTIQ Update Terminal

SYSTEM SETUP **WITHOUT** UPDATE TERMINAL
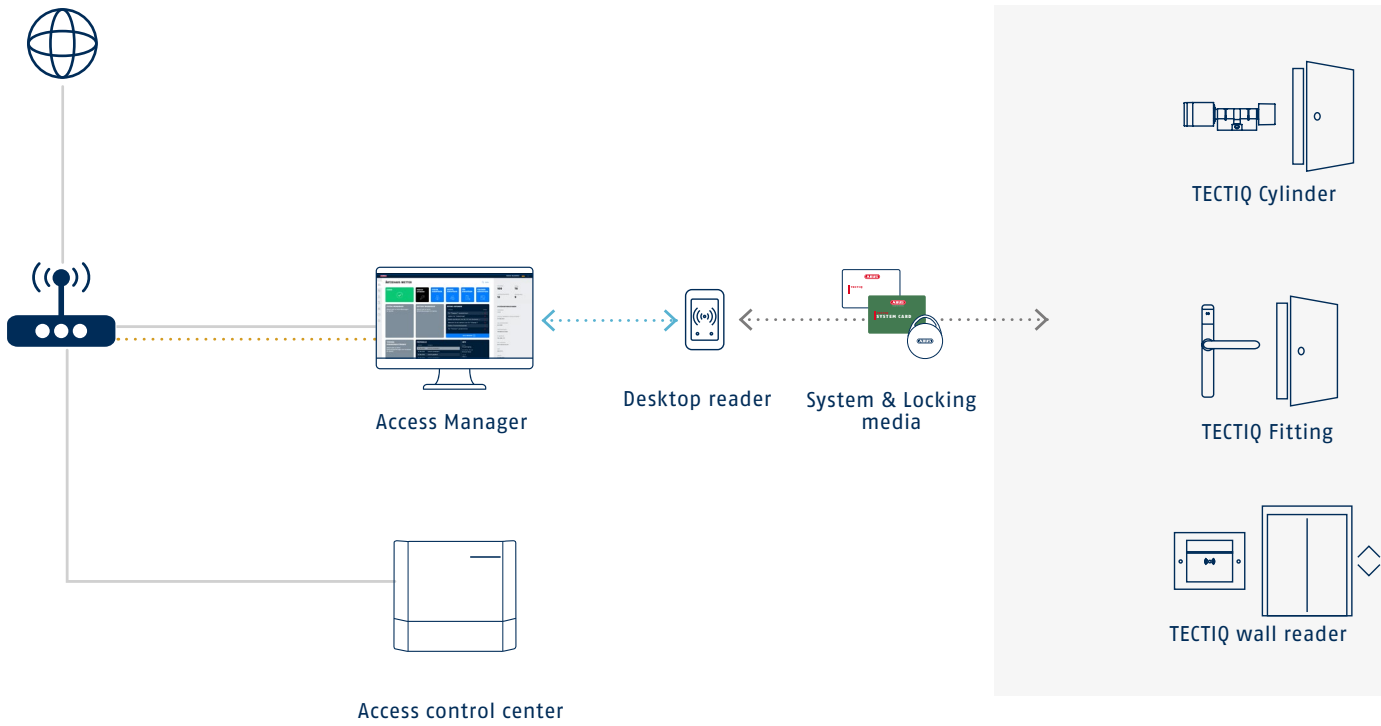
TECTIQ Cylinder

Access Manager

Desktop reader

System & Locking media

TECTIQ Fitting

Access control center

TECTIQ wall reader

Access Manager, desktop reader, locking and system media, access control center
TECTIQ cylinder, TECTIQ fitting, TECTIQ wall reader
Operation without update terminal

NETWORK INTEGRATION TECTIQ SYSTEM

For initial setup and subsequent maintenance, we recommend documenting the configuration of the IP addresses and the corresponding MAC addresses. The following overview should therefore be agreed with the person(s) responsible for IT.

Recommendation: After the initial setup, it is recommended to use fixed IP addresses if possible. If DHCP is used, DHCP address reservation is recommended.

Option 1: Operation **with** update terminal

Access control center

Installation location:
MAC address:
Fixed IP: DHCP

Update terminals

Installation location:
MAC address:
Fixed IP: DHCP

Installation location:
MAC address:
Fixed IP: DHCP

Installation location:
MAC address:
Fixed IP: DHCP

Installation location:
MAC address:
Fixed IP: DHCP

Installation location:
MAC address:
Fixed IP: DHCP

Option 2: Operation **without** update terminal

Access control center

Installation location:
MAC address:
Fixed IP: DHCP

TECTIQ INITIAL SETUP

A so-called discovery service has been integrated to make it easy to find your access control center and existing new update terminals via the TECTIQ Access Manager during the initial setup in the network.

RECOMMENDATION FOR THE INITIAL SET-UP
- For quick and easy initial setup and operation, we recommend operating the access control center and the PC with the TECTIQ Access Manager in the same subnet. The Discovery Service only works in the same subnet without further configuration of the network infrastructure. This also applies to adding the update terminals in the TECTIQ Access Manager.

- Alternatively, the access control center and update terminals can be added manually by entering the IP address.

IMPORTANT NOTES
If the control center, update terminals or the PC with Access Manager software are not in the same subnet during the initial setup, the following instructions must be observed:

- The Access Manager's Discovery Service uses mDNS technology in local networks. Using mDNS discovery, devices present in the network are recognised and their IP address determined. In order to forward mDNS requests to other subnets (or other VLANs), it must be ensured that „mDNS forwarding" is activated in the configuration of the corresponding routers/switches.

- The configuration of „mDNS forwarding" depends on the manufacturer of the switches used (Layer 3 routing-capable). Most „managed" routers/switches (e.g. many models from Juniper, Cisco, Aruba, …) support this function.

- After successful discovery, mDNS forwarding is generally no longer required. If devices are removed or new ones added, it must be ensured that mDNS forwarding is active.

- Please also note the port authorisations (see below) for the configuration of the firewall.

TECTIQ SYSTEM ONLINE REMOTE FUNCTIONALITY
The TECTIQ system can be operated in the local network. Additional functions can be utilised via the online remote connection. These are e.g:

- Remote system management via remote access to the access control center using the Access Manager.

- Cross-site integration of update terminals into the access control center. This enables several locations to be equipped with one TECTIQ system.

IMPORTANT NOTES

- **Remote access:** If the access control center and PC with Access Manager software were made known during the initial setup (e.g. in the same subnet) and the corresponding settings are configured in the firewall (see P2P switching server below), then from this point on PCs with Access Manager can also reach the center very easily from the public network (WAN) regardless of the subnet/VLAN.

- **Cross-site system:** Update terminals that are located in a different network/location than the access control center can be integrated via a secure peer-to-peer connection. To do this, the update terminal must first be connected to the access control center in the same network. It can then be installed in the remote network/location. The connection to the access control center is then established automatically.

FIREWALL SETTINGS FOR FUNCTIONS WITH ONLINE CONNECTIVITY

Depending on the network, firewall settings may be required for the online functions.
You will find all the information below:

1) NTP-SERVER

To synchronise the system time, you are strongly advised to select an NTP server. **Port 123 (TCP/UDP)**
must be enabled for this connection to the time server on the Internet.

2) PEER-TO-PEER MEDIATION SERVER

A peer-to-peer service has been integrated in order to be able to access the access control center
(also from outside the internal network) using the TECTIQ Access Manager software or to be able to
integrate remote update terminals. This enables maximum convenience and simplicity as well as
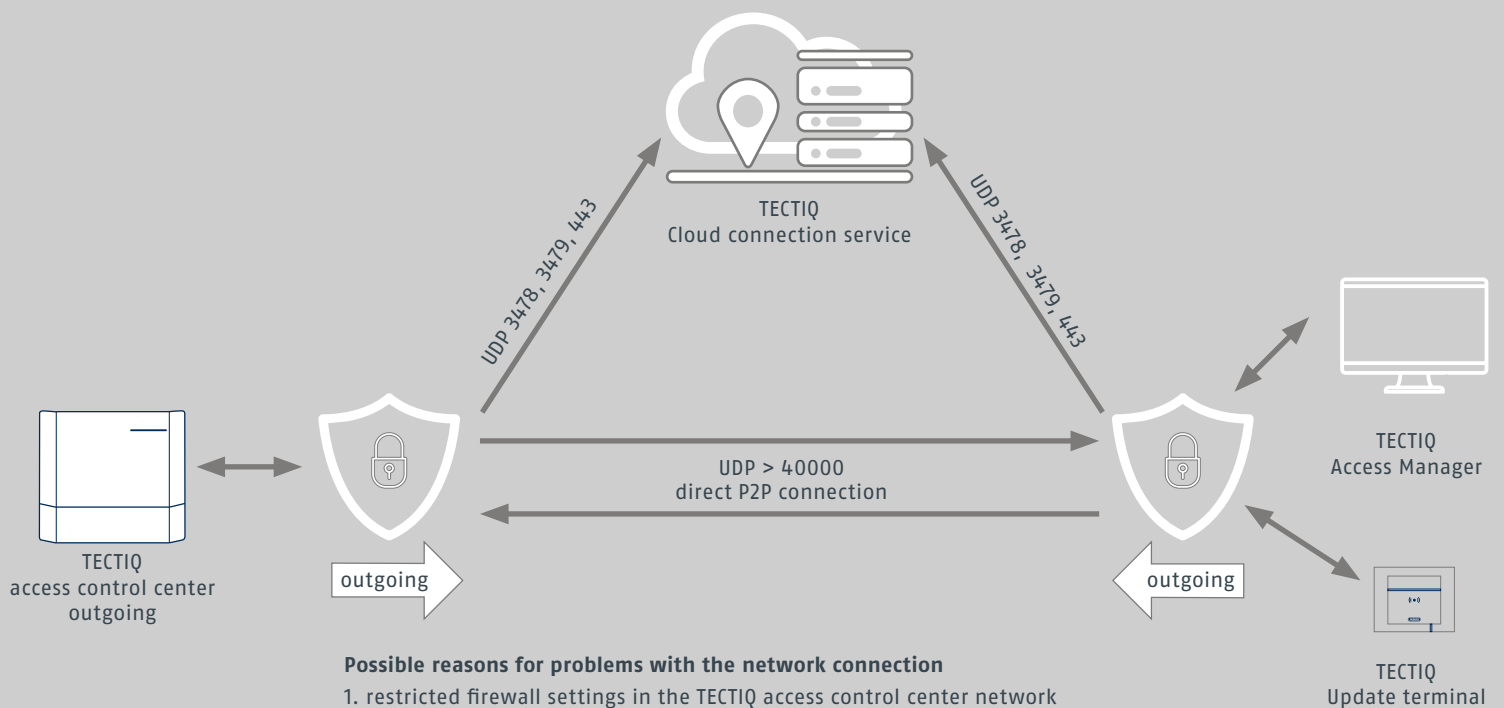security for remote connections to the TECTIQ access control center.

The following **outgoing** firewall and port settings must be configured for proper functioning both for the access
control center and for the PCs with the Access Manager software (incoming ports are not necessary):

Urgently required:

Port 53 (UDP):	DNS service
Port 443 (UDP/TCP):	TECTIQ Cloud connection service
Port 3478 (UDP):	Server connection
Port 3479 (UDP):	Server connection

Recommended, but optional:

From port 40000 (UDP): P2P communication
The activation of these ports enables a direct P2P connection and thus improved performance.

TECTIQ
Cloud connection service

UDP 3478, 3479, 443

UDP 3478, 3479, 443

TECTIQ
Access Manager

UDP > 40000
direct P2P connection

TECTIQ
access control center
outgoing

outgoing

outgoing

TECTIQ
Update terminal

Possible reasons for problems with the network connection
1. restricted firewall settings in the TECTIQ access control center network
2. restricted firewall settings on the client side for remote access
3. standard DNS lookup for UDP port 53 is blocked

Relevant product data sheets

Please note the PC requirements for using the TECTIQ Access Manager, as well as the requirements for installing the access control center and update terminals. The data sheets can be downloaded from the product pages below:

TECTIQ Access Manager
abus.com/product/TTAM10000

TECTIQ access control center
abus.com/product/TTC010000

TECTIQ Update Terminal
abus.com/product/TTSG10000 (Control unit update terminal)
abus.com/product/TTWL10067S (reader units)