

**Technical data****ENIQ Access Management****Devices supported:**

Management of all DOM devices using 13.56 MHz technology:

- ENiQ Pro, ENiQ Pro V2 (BLE)
- ENiQ Guardian / ENiQ Guard / GUARD S
- ENiQ AccessManager / Terminal / ITT - V1 + V2 (BLE)
- ENiQ RF NetManager V1 + V2 (BLE)
- ENiQ Protector
- ENiQ LoQ

- No support for ELS 125 kHz end devices

**Transponders supported:**

- Mifare locking media  
(types supported depend on mode of operation, see below)

**System architecture:**

- Web application (ASP.NET)
- Platform-independent client access via web browser without client installation
- Web server used: Microsoft IIS

**Modes of operation:**

“Conventional” offline operation:

Transponder UID is stored on the device:

- Wireless communication with the end devices via radio (868 MHz) or BLE (2.4 GHz) using USB radio stick.
- Use of the software possible with mobile laptops or netbooks as programming medium

“Intelligent” offline operation:

Operation as virtual network ("intelligent transponders"):

- Authorisations are written to closing media using a DOM desktop reader
- In addition, transponder authorisations can be extended by ENiQ® AccessManager Terminal.

“Conventional” online operation:

This concept is intended for properties where authorisations often change or system events have to be represented directly for security reasons.

- Ethernet network (TCP/IP)
- Changes in authorisation are carried out by software and forwarded online to the end devices such as ENiQ AccessManager or ENiQ Guard®. Changes take effect promptly.
- Immediate door opening by ENiQ AccessManagement
- Activation of special functions by ENiQ AccessManagement

“Intelligent” online operation or mixed operation:

In addition, transponder authorisations can be rewritten online and extended through ENiQ® AccessManager ITT.

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**Mobile operation:**  
(e.g. as netbook/notebook)

When the server database is available (individual station installation or available connection to the server):

- Availability of the web application locally
- All data can be changed locally

Without connection to the server database:

- Windows application "ENiQ DeviceManagement" with simple, function-reduced user interface without changes to (authorisation) data
- Synchronisation of data with the server database

**User interface (GUI):**

- Convenient and efficient interface
- User-specific adaptation through defined roles
- Languages: German, English, French, Dutch

**Modules:**

Standard module:	Devices	Transponders
• Module S	max. 25	max. 100
• Module M	max. 125	max. 500
• Module L	max. 750	max. 3,000
• Module XL	max. 9,500	max. 32,000
• Module XXL	> 9,500	100,000

Intelligent transponder module:

- (additional) management and programming of intelligent transponders or virtual networks

Online module

- (additional) management and programming of DOM devices via Ethernet and RF NetManager (radio nodes).
- Modules available for the following numbers of devices: 5, 10, 25, 50, 100, >100

**Database / data management:**

- Standard database: Microsoft SQL Server from 2014 (Express Edition 2019 is included in the scope of supply with the limitation: database size max. 10 GB)  
Details: SA password necessary  
Network authorisation requires open ports TCP/IP 1433 +UDP 1434  
With online feature: TCP/IP + UDP Ports 47116-47119 (supports existing Microsoft SQL servers: 2012-2019)

Event storage:

- Device events are stored
- Selection and filter possibilities
- Time stamp accurate to the second
- Event export in pdf, xls, csv or rtf file format

Data export and import:

- Export of all data as pdf, xls, csv or rtf files
- Import of persons, locking media and devices (via ENiQ DeviceManagement)

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**Authorisation assignment:**

- Organisation of the devices in areas:
  - Freely definable area hierarchy
  - Inheritance of features to sub-areas and devices
  - Displayed as tree structure
- Organisation of the closing media or users in groups:
  - Fast authorisation assignment for groups
  - Mapping of organisational structures
- Authorisation assignment:
  - Allocation of authorisations for individual users, closing media or closing media groups
  - Allocation of device and area authorisations

**Storing authorisations in the end device:**

- Transponder types supported:
  - Mifare DESFire / DESFire EV1+EV2+EV3 2k, 4k, 8k
  - Mifare Classic 1k, 4k
  - Mifare Plus S/X 2k, 4k
  - Mifare Ultralight / Ultralight C
- Storing of up to 5,000 authorisations in the end device
- Identification of the transponders via their UID

**Storing authorisations on the transponders:**

- Transponder types supported:
  - Mifare DESFire EV1+EV2+EV3 2k, 4k, 8k
  - Mifare Classic 1k

• Possible storage configuration Mifare Classic:

	Description	available from	Devices	Areas	Blacklist entries	Memory occupied (Bytes)
	A1	1k	112	240	6	896
	A2		32	512	0	896
	A3		192	0	6	896
	A4		176	48	6	896
	A5		160	64	6	896
	A6		96	256	6	896
	A67		80	240	6	768

• Possible storage configuration Mifare DESFire:

	Description	available from	Devices	Areas	Blacklist entries	Memory occupied (Bytes)
	B3	2k	64	64	8	1056
	B4		240	240	8	1792
	B5		256	256	8	1824
	B6		48	48	8	1024
	C2	4k	832	256	8	3616
	C3		256	2048	8	4160
	C4		512	512	8	2848
	D1	8k	1408	2048	16	7200
	D2		2048	256	8	7040
	D3		1024	1024	16	5024

- Further data on the transponder:
  - "Blacklist" with blocked transponders
  - Authorisation period, week plan on the end device

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**Week and day plans:**

- Storage of max. 252 freely definable week/day plans
- Every week plan references any 10 day plans (7 days of the week and 3 special days for public holidays/holidays):
 

1	2	3	4	5	6	7	8	9	10
Mon	Tue	Wed	Thu	Fri	Sat	Sun	Pub. holiday / holidays		
TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8	TP9	TP10
- Each day plan is made up of 96 time windows à 15 minutes, each of which must be defined as authorised or non-authorised:
 

0 <sup>00</sup>	1 <sup>00</sup>	2 <sup>00</sup>	3 <sup>00</sup>	...	20 <sup>00</sup>	21 <sup>00</sup>	22 <sup>00</sup>	23 <sup>00</sup>
█	█	█	█	█	█	█	█	█
- Access rights to day/week plans:
  - Plan 0: No access (not authorised)
  - Plan 1: Access unlimited in terms of time, active special functions restrict access
  - Plans 2-254: Freely definable
  - Plan 255: Access unlimited in terms of time, active special functions are ignored

**Special functions**

- Permanently open and permanently closed week plans
- Temporary authorisation (Office function)

**Pub. holidays / holidays:**

- Max. 256 public holidays or holiday intervals can be stored per device
- Definition of 3 different public holiday/holiday types
- Begin / end as from / to date

**Recommendations:**

- Client/Server: No more than 20 permanently activated desktop readers should be used in the system.
- ENIQ AccessManager ITT: No more than 20 permanently activated ACM ITTs should be used in the system.

**Installation note:**

- The automatic installation can be influenced by external software that has already been installed. If you have any problems, please call our service telephone to find a solution.

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**Operating systems supported / system prerequisites:**

- MS Windows 8.1, MS Windows 10/11 Pro, 64-Bit only (Premium, Professional, Enterprise, Ultimate, not Home) or MS Windows Server 2014-2022 (Essential / Small Business)
- Note: at least Net Framework 4.5.2 (Windows update)
- Current standard web browser e.g. MS Edge, Mozilla Firefox, Chrome-Browser
- An internet connection is required for installation (to download Windows updates)
- Minimum screen resolution: 1024x768px (XGA)  
Optimum: >= 1280px768px WXGA
- Network speed for client/server: ≥ 100 Mbit
- The ENiQ AccessManagement software is incompatible with the following extensions: EXCHANGE-Server, WSUS-Server, Domain Controller

**Recommended Server configurations:**

<b>Config - Small</b>	Processor: i3 or compatible Windows 8.1 or Windows 10/11 Pro 8 GB main memory 2 processor cores 50 GB HD (better SSD) MS SQL Server EXPRESS 2019
<b>Config - Standard</b>	Processor: i5 or compatible Windows 10/11 Pro 8 GB main memory 2 processor cores (better 4) 50 GB HD (better SSD) MS SQL Server EXPRESS 2019 Virtual server, server room recommended
<b>Config – Optimum</b>	Processor: >=i7 or compatible, XEON Windows 10/11 Pro, Windows Server Version >= 16GB main memory >= 4 processor cores >= 100 GB SSD MS SQL Server STANDARD 2019 Virtual server, data center Backup System

**Requirement-based server configuration:**

Facility type	Config Small	Config Standard	Config Optimum
<b>Offline conventional</b>	x		
<b>Online conventional</b> <10 Online devices	(x)	x	
<b>Online conventional</b> <100 Online devices		(x)	x
<b>Online conventional</b> >100 Online devices			x
<b>Offline intelligent</b> < 100 Devices	x		
<b>Online intelligent</b> < 10 ACM, 0 RFNM	(x)	x	
<b>Online intelligent</b> < 10 ITTs, 0 RFNM		x	
<b>Online intelligent</b> < 10 RFNM + End devices		x	
<b>Online intelligent</b> > 200 RFNM + End devices			x
<b>Online intelligent</b> > 25 Desk reader			x
<b>Online intelligent</b> > 10 ITTs		(x)	x



*All specifications correspond to the current development status.  
We reserve the right to make technical changes at any time.*