

AT&T Cabling Systems @Lock

Access Control

Data centers are broken into on a regular basis. In many cases, the intention is simply to steal high-quality IT equipment. However, breaking in may only be a pretense for stealing data and/or putting in place a man-in-the-middle infrastructure.

On 28 February 2011 for example, an important data center belonging to a global telecommunications service provider was paralyzed by intruders. Only a few weeks previously, a DC service provider working on behalf of a major health care company became the victim of an attempted break-in, which resulted in the entire security concept undergoing a TÜV audit. Generally speaking, attacks of this kind go undetected. Data centers are security areas and therefore need to be secured through various measures. An important part of this is controlling access to and in the data center.

Controlling access to the data center is usually achieved through a combination of organizational measures, e.g., gates and turnstiles, besides a building access control system.



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Working with various partners, AT&T Cabling Systems has developed system concepts which not only improve physical security through access controls within the data center but also simplify operative processes, making them less susceptible to errors. These concepts are known as “@Lock”.

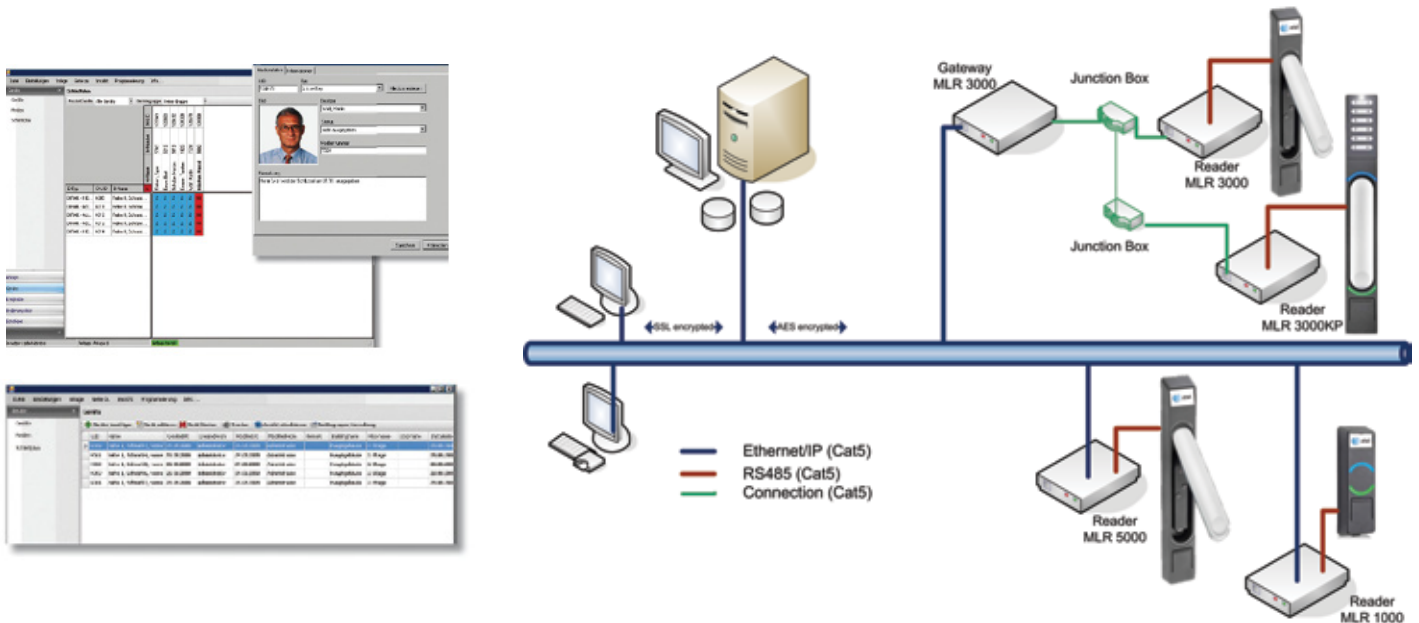


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Transponder Card System @Lock "Transponder Card System" Concept

This system concept can be applied throughout – from the DC and cold aisle doors to the individual cabinets. In addition to the card readers and handles, the extensive "Administration Suite" management software is a key part of the system.

Thanks to its modular design and open infrastructure architecture, the new Administration Suite can be expanded as required and can also be implemented for third party providers.



- Encrypted data communication between the hardware, server and client.
- Runs on Windows 2000, Windows XP, Windows Vista, Windows Server 2003, Windows Server 2008, Citrix.
- Allows administration of various users with different types of authorization.
- Client/server capability.
- Web client-capable, SNMP alarming.
- Record changes made to the system by users.
- Straightforward user guidance in spite of extensive tools.
- Wide range of alarm messages.
- Automatic alarm notification via e-mail.
- Centralized locking plans and access management.
- Freely selectable four-eyes-principle.
- Support for the most common transponder types.
- Central management of various systems.
- Records all actions in "Log Events".
- Free replacement of the lock system if the authorizing medium is lost.
- Real-time visualization of the swing handle stations.
- Configuration of special days with different locking regimes.
- Allocation of time profiles for access.
- Able to export "Log Events".
- Multilingual software.

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MLR 3000 and MLR 5000 handles are suitable for linking server or network cabinets to the transporter card system. The E-LINE, by Dirak mechatronic swing handles and the Administration Suite software, provide a convenient, reliable way of monitoring access to your data or server cabinet. With the Administration Suite software, security officers can conveniently monitor and manage access directly from a PC. The integrated LEDs display alarm messages and types of authorization on the handle itself.

As a result, technicians on site are given the same information that the Administration Suite software sends to the headquarters. LEDs at the top and bottom of the handle offer permanently high luminosity with low power consumption. As a result, the lock status can be determined quickly, even from a distance of several meters. The top LED can indicate various statuses, such as that the handle is ready to be opened or locked. The bottom LED displays whether the handle is within or outside the temperature range for the cabinet selected by the customer. As a result, irregularities may be identified quickly, leaving enough time for appropriate action to be taken.



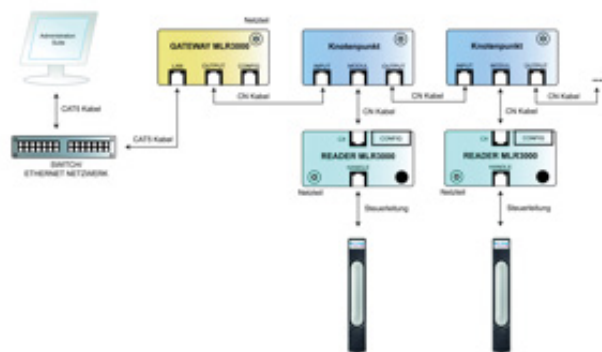
The information display integrated into the handle is backlit and allows customer-specific information, such as the cabinet row, cabinet number etc., to be added for extra clarity.

Handles are also available with integrated Keypad (MLR5000KP). They can be used with either keycard, keypad or both (two-factor- authentication).

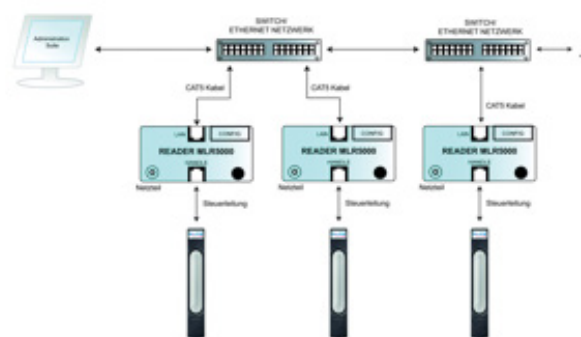


AT&T Cabling Systems @Lock

@LockMLR3000



@LockMLR5000



Technical Data – @Lock MLR3000/5000

Handle Electronics

Two-part hardware design

Visualization

Reader

Reader

Housing

Power supply

Standby current (system ready)

Max. current consumption (with connector tightening)

RS232 interface for MLR3000

Current increase for MLR5000 via Ethernet interface

TCP/IP interface

Connecting cable (reader - handle electronics)

Relay output (via screw clamps)

Door contact input (via screw clamps)

RS485 interface

Memory capacity for transponder cards

Memory capacity for events

Memory capacity for time profiles

Integrated real-time clock

Temperature range

Swing handle and reader unit

Multicolored status LED

For 125 kHz transponders (HID 26 bit system), alternatively 13.56 MHz (MIFARE)

Reader unit in plastic housing can be fixed with screws or self-adhesive pad

12 V ± 10 % (DC) via low voltage socket

40 mA (DC)

440 mA (DC)

RS232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud

125 mA (DC)

Ethernet, 10/100 Autosense, up to 100 Mbaud

8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8

2.5 mm², can be screwed in from plug side, relay contact: 12 V, 3 A, 60 W, 120

2.5 mm², can be screwed in from plug side, terminals 1 and 2

RS485 cable to the E-LINE by DIRAK Gateway, (+/A, -/B), 38,400 baud

2000 + 1 master transponder

500 (ring memory)

30

With buffering of up to 60 min at 25 °C

-20°C – +70°C

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Ordering Information

| Description | Dimensions mm | Ordering Information | Unit |
|----------------|------------------------------------|----------------------|--------|
| @LockMLR3000 | for RCE and DCE front door | 01.180.225.9 | 1 unit |
| @LockMLR3000 | for twin door (e.g. DCE rear door) | 01.180.227.9 | 1 unit |
| @LockMLR5000 | for RCE and DCE front door | 01.180.228.9 | 1 unit |
| @LockMLR5000 | for twin door (e.g. DCE rear door) | 01.180.229.9 | 1 unit |
| @LockMLR5000KP | for RCE and DCE front door | 01.180.240.9 | 1 unit |
| @LockMLR5000KP | for twin door (e.g. DCE rear door) | 01.180.241.9 | 1 unit |

Ordering Information - Accessories

| Description | Ordering Information | Unit |
|---|----------------------|--------|
| Door contact | 06.108.115.9 | 1 unit |
| HID transponder card | 01.180.040.9 | 1 unit |
| Desktop reader for the initial reading of transponder cards | 01.180.040.9 | 1 unit |
| MLR3000 Gateway | 01.180.111.9 | 1 unit |
| Plug-in power supply (Europe) | 01.180.035.9 | 1 unit |

Other plug-in power supplies on request



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Technical Data – MLU3000/5000

MLU Card Readers can be used to Connect a Room Door with Existing Electromechanical Locking or Motorized Cold Aisle Door (Coolfex):

- Three-part hardware design MLU3000 set comprising: external MLU reader, network reader unit and MLU1000 lock.
- Visualization on MLU reader: 2 x multicolored status LEDs and 1 x backlit information display.
- Antenna for 125 kHz transponders (HID 26 bit system).
- Optional MLU1000 lock
 - Die-cast zinc (GDZn), color: mat chrome.
 - 4 m control cable.
 - Power supply 24 V DC +/- 10 % 100 mA.
 - Proximity sensor status contact.
 - Wall/sheeting thickness independent.
 - Electronic opening by interrupting the power supply.
- MLU3000/MLU5000 network reader
 - Housing reader unit in plastic housing can be fixed with screws or a self-adhesive pad.
 - Nominal input voltage 12/24/48 V ± 10 % (DC) depending on the electronic lock connected.
 - Standby current (system ready) 40 mA (DC).
 - Max. current consumption RJ12 (LOCK) 1.5 A (DC).
 - Max. current consumption via relay clamp 3.0 A (DC), clamps 10-11.
 - RS232 interface RS 232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud.
 - Connecting cable (reader - external MLU antenna) 8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8.
 - Relay output (via screw clamps) 2.5 mm, can be screwed on from plug side, relay contact: 12 V, 3 A, 60 W, 120 VA, terminals 3 - 5.
 - Door contact input (via screw clamps) 2.5 mm² can be screwed from plug side, terminals 1 and 2.
 - RS485 - RS485 interface - cable to the E-LINE by DIRAK Gateway, (+/A, -/B), 38,400 baud (MLU3000).
 - TCP/IP Ethernet interface, 10/100 Autosense, up to 100 Mbps (MLU5000).
 - Power off when open/closed: depending on the electronic lock connected, this is configured in the Administration Suite Config Tool.
 - Memory capacity for transponder cards 2000: + 1 master transponder.
 - Memory capacity for events: 500 (ring memory).
 - Memory capacity for time profiles: 30.
 - Integrated real-time clock with buffering of up to 60 min at 25 °C.
 - Temperature range -20°C – +70°C.



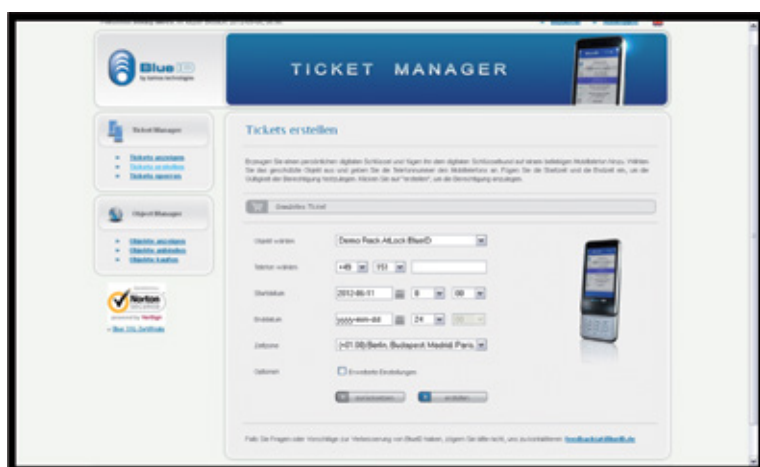
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BlueID

@Lock "Blue ID" System Concept

@Lock BlueID is an innovative data center locking system which is highly flexible and user-friendly. Instead of a set of keys or transponder cards, "virtual" keys, kept on mobile communication devices (smartphones, tablets etc.), are used. These virtual keys are transferred to a mobile device via SMS. No online access is necessary to use the keys.

The locking system comprises MLR1000 handles, a BlueID control system, a power supply, vouchers for generating keys (100 daily tickets, 10 yearly tickets, 10 reload tickets) and installation materials. Additional ticket packages or two additional MLR1000 handles per BlueID box can be ordered separately.



Technical Data – BlueID Control System

- Dimensions: 157 x 86 x 58 mm (WxHxD) plus antenna and plug.
- Weight: 0.24 kg.
- Temperature range – storage: -40°C to +85°C.
- Temperature range – operation: -20°C to +70°C.
- Supply voltage: 7-32 VDC; max: 400 mA.
- Power consumption: 2 W.
- Relay switching voltage (max.): 250 V AC.
- Relay switching current (max.): 5 A.
- Contact clamps (potential-free): 4 x 2.
- Optocoupler inputs (potential-free): 4 x 2.
- Connection: Bluetooth 2.0 EDR.
- Connection: Ethernet (RJ45).
- Connection: WLAN/WiFi (optional, with BlueID WLAN/WiFi upgrade accessory, Art. No. 4260200780775).

Ordering Information

| Description | Ordering Information | Unit |
|--|----------------------|--------|
| AT&T Cabling Systems bundle. @LockBlueID for DCE | 01.180.320.0 | 1 unit |
| Package of 100 daily tickets | 01.180.321.0 | 1 unit |
| Package of 10 yearly tickets | 01.180.322.0 | 1 unit |
| Package of 10 reload tickets | 01.180.323.0 | 1 unit |



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Potential-Free Contacts

@Lock "Potential-Free Contacts" System Concept

Swing handles from the @Lock MLR1000 range are suitable for connecting electromechanical swing handles to existing building management systems or local identification systems, in addition to complementing @LockBlueID or rack monitoring systems.

The handle can be opened as soon as its potential-free contacts are activated or a voltage of 12-24 V DC is supplied. Following activation, the MLR1000 switches to ready-to-open status.

During this period, the user can open the MLR1000 by pressing a button.

The LED at the top of the handle offers permanently high luminosity with a low power consumption. As a result, the lock status can be determined quickly, even from a distance of several meters.

The information display integrated into the handle is backlit and allows customer-specific information such as the cabinet row, cabinet number etc., to be added for further clarity.

Technical Data – @LockMLR1000

Handle Electronics

| | |
|--|--|
| Two-part hardware design | MLR1000 and MLR1000 Box |
| Visualization | Status LED |
| MLR1000 Box | |
| Housing | Interface unit, plastic housing can be fixed with screws or self-adhesive pad |
| Power supply | 12 V DC \pm 10 % via screw clamps |
| Standby current (system ready) | 40 mA (DC) |
| Max. current consumption (with connector tightening) | 410 mA (DC) |
| Operating mode | 100 % ED |
| Relay control | 12V DC |
| Operating time | Max. 3 seconds |
| Contact output | 250 V AC, 2 A |
| Installation position | Vertical |
| Connection type | Screw clamps, 2.5mm ² |
| Connecting cable(reader - handle electronics) | 8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8 |
| Temperature range | -20°C – +70°C |

AT&T Cabling Systems @Lock

| | @Lock MLR5000 | @Lock MLR3000 | @Lock MLR1000 | @Lock BlueID |
|---|--|--|--|-------------------------------|
| Software necessary | Admin Suite | Admin Suite | Custom | Web browser, Mobile phone app |
| E-Line Administration Suite Software | Yes | Yes | No | No |
| External emergency power supply connector | Yes | Yes | Yes | No |
| Identification | Transponder card | Transponder card | Dependent on customer's equipment and software | BlueID |
| IP support | Yes | Gateway | No | Optional |
| Log files | Yes (in combination w. Administration Suite) | Yes (in combination w. Administration Suite) | Dependent on customer's equipment and software | Optional |
| User profiles | Yes (in combination w. Administration Suite) | Yes (in combination w. Administration Suite) | Dependent on customer's equipment and software | No |
| Four-eyes-principle | Yes (in combination w. Administration Suite) | Yes (in combination w. Administration Suite) | Dependent on customer's equipment and software | Yes |
| Off-line mode | No | No | No | Yes |
| Technology partner | Eline by Dirak | Eline by Dirak | Eline by Dirak | BlueID by Baimos Technologies |

| Type | Model | Ordering Information | UP |
|--------------|-------------------------------------|----------------------|--------|
| @LockMLR1000 | for RCE and DCE front door | 01.180.224.9 | 1 unit |
| @LockMLR1000 | for twin doors (e.g. DCE rear door) | 01.180.226.9 | 1 unit |

Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions

