

PASSCHIP®

Smart card chip reader
with Wiegand protocol for
lobby entrance

PRODUCT: Banking Smart card chip reader with Wiegand protocol for advanced access control systems

PASSCHIP enables Banks to facilitate the access of customers to the 24Hours Self Service area, in a secured, automatic way. The system is very flexible allowing multiple possible configurations and combined with its simplicity and intuitive GUI makes PASSCHIP an advanced and easy to use Access Control System.

PRODUCT IMAGE of Applied model- Stainless Steel material:



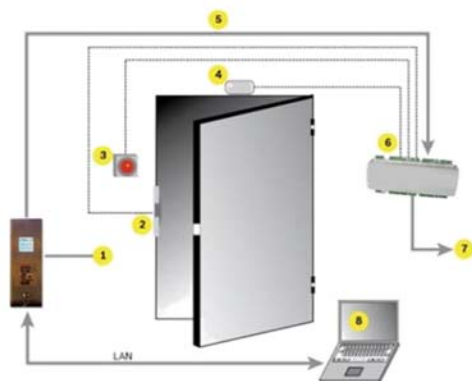
Dimension(WxHxD): 138x312x124 mm

The access selection is made following one or more criteria, according with the specific application:

- *Name/Surname written on the credit cards(it is possible to define BLACK LISTS)
- *Credit card number
- *Type of credit card(Visa, Visa Electron, Visa Business, Visa Gold, Maestro....)
- *Bank(the system may be programmed as only the bank's clients to have access or full different scenarios)
- *Date of expiry

Note: The system is a security product, it does not log on sensitive and personal data, nor financial data of readed cards.

It is designed only for access and management purposes.



1 = chip reader; 2 = electric lock; 3 = exit button;

4 =

magnetic contact; 5 = communication bus; 6 = access control module; 7 = control unit; 8 = computer with administration software

This application runs on the Control Unit and has to authenticate a customer before allowing him to enter the 24Hours Self Service area.

Functionality:

- Authentication / Authorization

authentication is initiated by the customer by presenting a smartcard to a PASSCHIP reader

- PASSCHIP reads the card details (Card Number and Expiration date) and then takes the appropriate action (allow or block access to the 24Hours Self Service area)

Error! No sequence specified.

Features:

- Fire - used in case of emergency – generated from an access control system
- External Timetable – used to control when to allow customers access to the 24Hours Self Service area - generated from an access control system
- Timetable – used to define the working schedule for the application
- Magnetic contact – used for confidentiality purposes after entrance
- PIR also for confidentiality purposes after entrance

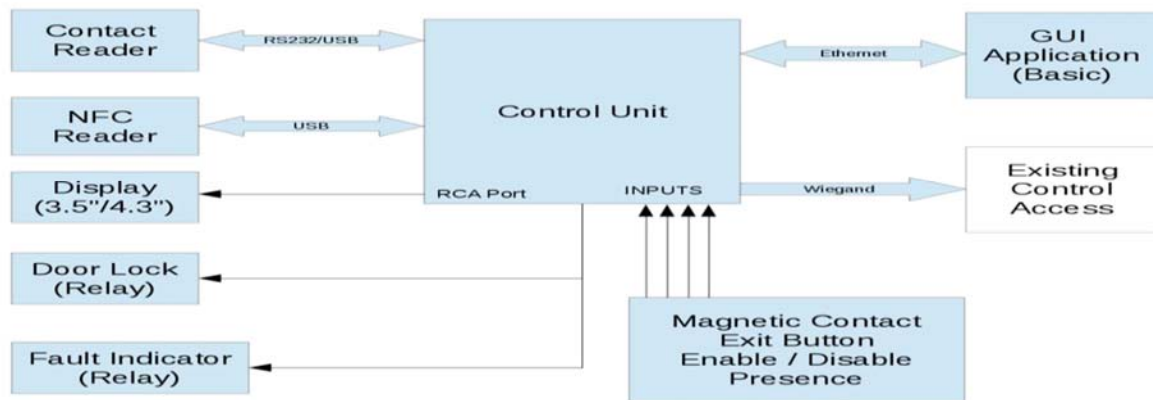
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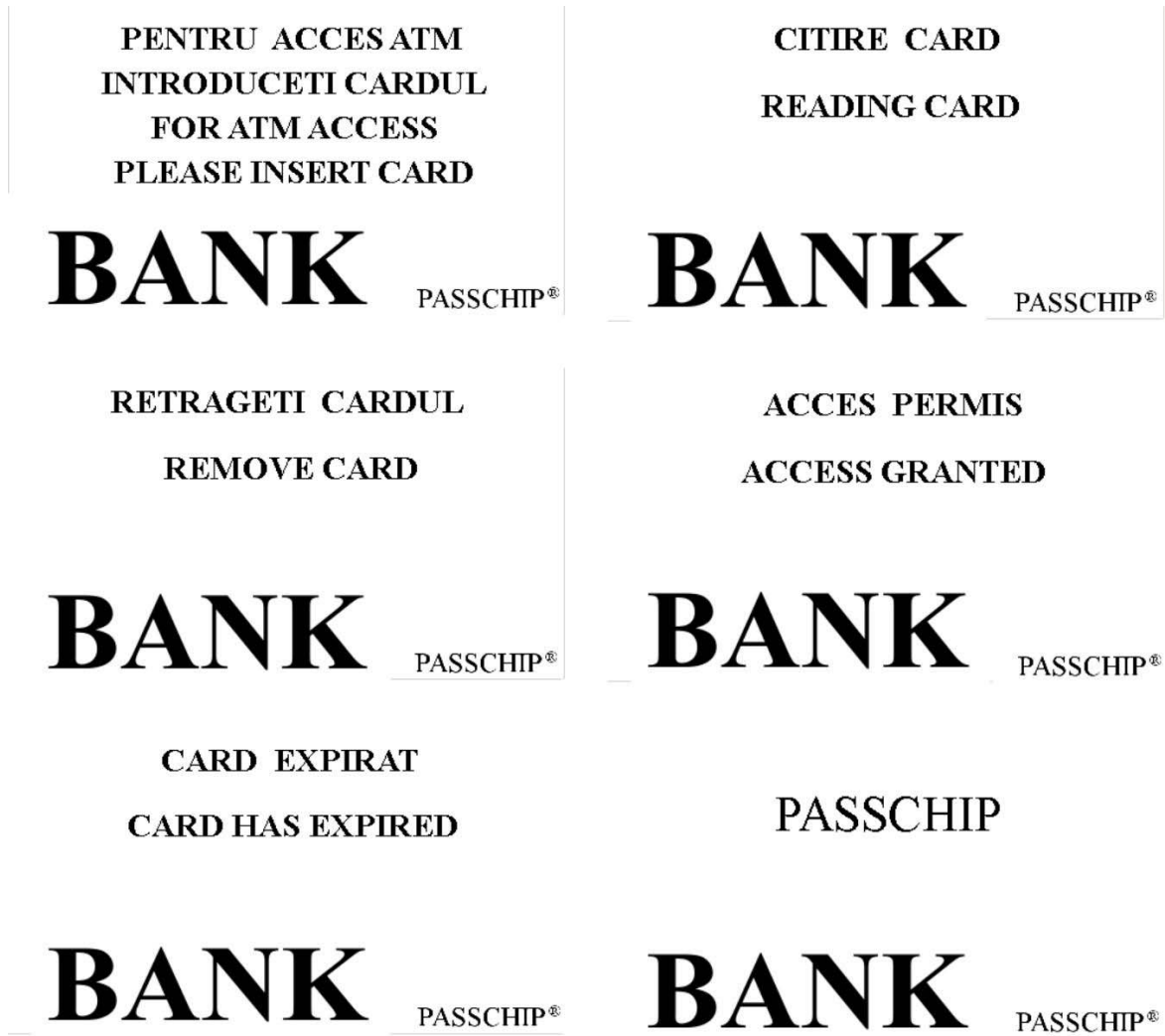
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Data subject to change without notice



- ID List – this is the list of bank's accepted ID for customer's smartcards; this feature is useful for blocking a specific type of smartcards (eg. Visa Electron)
- BLK (blocked) List – this is a list of Card Numbers or Card Number prefixes that are not allowed to enter the 24Hours Self Service area; used for blocking a range of smartcards belonging to a bank or for blocking specific customers (eg. vandals).
- Door Timer – time period (seconds) that the Relay must be kept open; used to adjust the time period within which the customers are allowed to enter the 24Hours Self Service area
- Relay – PASSCHIP can control a relay which in turn locks / unlocks a door; this feature is useful for integrating PASSCHIP with a electromagnetic door lock
- Wiegand – PASSCHIP can act as a wiegand enabled reader which sends messages to an access control system; this feature is useful for integrating PASSCHIP with an existing access control system
- Different Display types (with different aspect ratios and resolutions) – during operation the display can be replaced with a different one
- Background Image customization – the background image can be replaced "on-the-fly" with a different one
- Text Messages customization – the text messages can be replaced "on-the-fly" with different ones

Sample images visible on the Display:



Server application

This application runs on a server and is responsible for controlling all PASSCHIPS and serving all requests from Client Application.

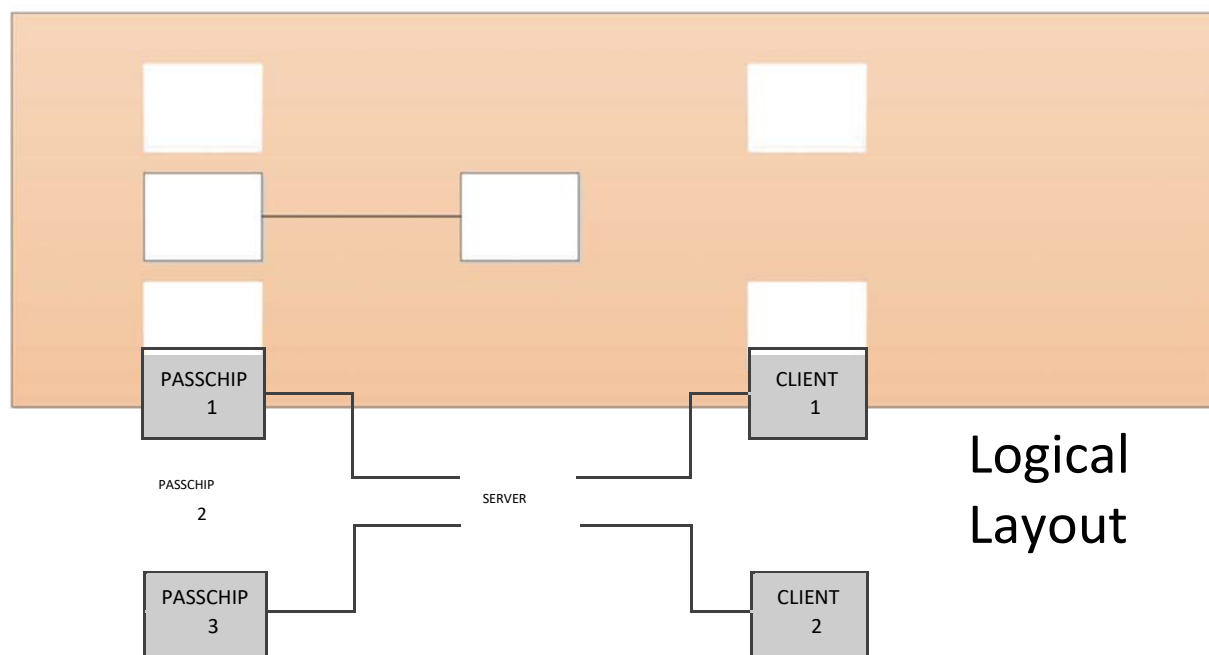
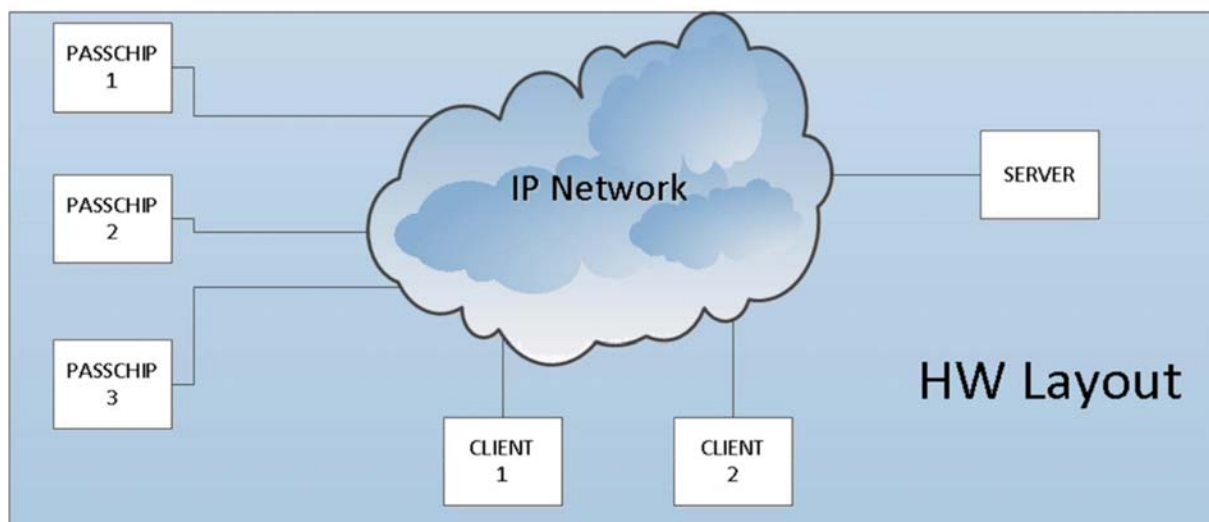
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Functionality:

- Logging
- Monitoring
- Statistics (Reports)
- User configuration
- PASSCHIP management

All persistent data is stored using an SQL database.

Client application

This application runs on user workstations and is used for managing the entire system (both admin console and operator application).

The screenshot displays the PASSCHIP Client application interface. The top menu bar includes 'File', 'Settings', and 'Help'. Below it, a series of tabs are visible: 'Authentication Required', 'Password Change', 'Operator', 'Location Mangement', 'PASSCHIP Profiles', 'PASSCHIP Configuration', 'User Management', 'License', and 'Server'. The 'PASSCHIP Profiles' tab is currently active.

The interface is divided into several sections:

- Profiles:** A section on the left with a text input field and buttons for 'Add', 'Delete', and 'Save'.
- Readers:** A section with radio buttons for 'Contact' and 'NFC'.
- Inputs:** A section with radio buttons for 'External Timetable', 'Fire', 'Tamper', and 'Door Sensor'.
- Outputs:** A section with radio buttons for 'Wiegand' and 'Relay'.
- Display:** A section with a dropdown menu set to '480x272', an 'Image Select' button, a dropdown menu set to 'insert_card', and buttons for 'Edit Message' and 'Preview Messages'.
- Timers [s]:** A section with a dropdown menu set to '3' for 'Door' and a dropdown menu set to '10' for 'Lost Card'.
- Application Version:** A dropdown menu set to '1.0.0'.
- Timetable:** A large table with days of the week as rows and hours (00-23) as columns. The cells are colored red or blue. Below the table are fields for 'WeekDay' (set to 'Monday'), 'Start Time' (12:00:00 AM), 'End Time' (12:00:00 AM), and 'State'. There are also 'Date' and 'Special Days' fields with 'Add' and 'Delete' buttons.
- AID:** A section with a list of AIDs (e.g., 'A0000000031010 - Visa credit or debit') and buttons for 'Add', 'Delete', and 'Save'.
- Blocked:** A section with a list of blocked cards (e.g., '1234567890123456 - Vandal') and buttons for 'Add', 'Delete', and 'Save'.

The bottom status bar shows 'Ion Popescu' on the left, 'Specific Message' in the center, and 'Server Connection' with a green indicator on the right.

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File Settings Help

Authentication Required Password Change Operator Location Mangement PASSCHIP Profiles PASSCHIP Configuration User Management License Server

Groups

All
USER Admin
PASSCHIP Admin
Operator

Users

Admin
Ion Popescu

User

Username: Jane1
First Name: Jane
Last Name: Doe
Password:
Groups: ☒ Operator ☐ PASSCHIP Admin ☐ USER Admin
☐ Change password on next login
☐ Account locked
☐ Password never expires
Password age: 21 days
Add Delete Save Reset Password

Password Policy

Minimum Length: 8
Minimum uppercase chars: 1
Minimum digits: 1
Minimum special chars: 1
Maximum password age [days]: 90
Failed attempts before lockout: 3
Password history: 3
Save

Ion Popescu Specific Message Server Connection

File Settings Help

Authentication Required Password Change Operator Location Mangement PASSCHIP Profiles PASSCHIP Configuration User Management License Server

Location

Location	Status
All	
Brasov	GREY
Brasov	OK
Brasov	ALARM
Prahova	
Ploiesti	
Brazi	
Timisoara	
Bucuresti	OK
Sector1	OK
Ghivita	OK
Sector2	OK
Sector3	OK
Iancului	OK

IP

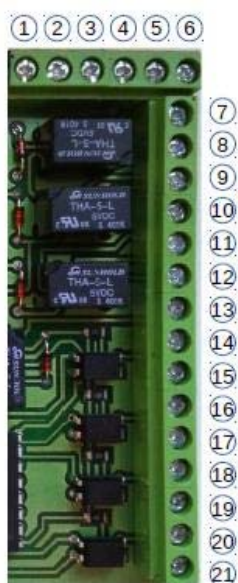
IP Address: 192.168.2.14
Netmask: 255.255.255.0
Gateway: 192.168.2.254
DNS: 192.168.2.254
Display IP:
Save

802.1X

Username: User
Password: *****
Display resolution: 480x272
Save

Ion Popescu Specific Message Server Connection

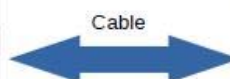
Shield pinout:



POWER SOURCE
12 V DC, 3A

RELAY 1A 30V DC

PIN	Description
1	Wiegand Data0
2	Wiegand Data1
3	Wiegand GND
4	INT BAT GND
5	INT BAT +5V
6	Not Connected
7	Door Relay NO
8	Door Relay NC
9	Door Relay COM
10	Fault Relay NO
11	Fault Relay NC
12	Fault Relay COM
13	Not Connected
14	GND
15	Inactive (Fire) (NO)
16	GND
17	PIR (NC)
18	GND
19	Exit Button (NO)
20	GND
21	CM (NC)
22	- 12V
23	+12V



Position	Description	Color
R1	Wiegand Data0	
R2	Wiegand Data1	
R3	Wiegand GND	
R4	- 12V	
R5	+12V	
R6	Not Connected	
R7	Door Relay NO	
R8	Door Relay NC	
R9	Door Relay COM	
R10	Fault Relay NO	
R11	Fault Relay NC	
R12	Fault Relay COM	
R13	Not Connected	
R14	GND1	verde
R15	Inactive / Fire (NO)	a-verde
R16	GND2	albastru
R17	PIR (NC)	a-albastru
R18	GND3	maro
R19	Exit Button (NO)	a-maro
R20	GND4	portocaliu
R21	Magnetic Contact (NC)	a-porto
R22	TAMPER	
R23	TAMPER	
R24	GROUND	

Communication	Ethernet 100 Base-TX/10Base-T RS232 up to 115200 Bit/sec Clock and Data Wiegand up to 64 bit
Memory	Internal DRAM 1 GB, record of min 50 configurable ID banking cards profiles according EMV or non EMV standard, SD slot available 1xMMC Real time clock with back-up Li-Ion maintenance free battery
Reference Standards	ISO 7816 with T=0 and T=1, EMVCo Level 1, ISO 7810, ISO 7811, JIS X6301, JIS X6302I, contactless NFC
Processor	ARM 64-bit, 1.2 GHz, Quad
Operating System	Linux OS
Software Upgrade	On line, during functioning
Power Supply	85-264 VAC, 45-65 Hz, Cold Start,
Power Consumption	Max. 30 W
History Log capacity	5MB, aprox. 10 000 events with time stamp
Lifecycle	Min 125 000 functioning hours Min 500 000 insertion cycles
Insertion Speed	8-127 cm/sec
Construction	Applied mount in Stainless Steel case or Flush mount in Aluminium painted case, Antiskimming, metal bezel, antivandal, UV filter for LCD screen
Display	LCD: 4.3" 480x272 pixels Contrast ratio 300:1, Brightness min 300cd/sqm Color min QVGA 65 000 colors
Agency Approvals and Standards	CE Conformity
Ambient conditions	Operating Temp:-30 C +50 C Storage Temp:-35 C +60 C Humidity: 10-95%
Sound and interface	Multi-color LED and multi-tone buzzer
Size of controller (W x H x D)	138 x 312 x 124 mm-Applied mount 170 x 195 x 80 mm-Flush mount
Weight	3.90 Kg
Protection Class	IP65 for Stainless Steel Applied model IP50 for Flush mount
Interaction with the user	Virtually any available known written language, pictograms and multitone internal buzzer
Black list	YES, online programable for maximum 1 000 card profiles
NFC	OPTIONAL

