The PORT Technology
The Transit Management System for an intelligent, secure, personalized transit experience.

The PORT
Technology

Schindler

Introducing the PORT Technology

Architectural innovations demand intelligent solutions

As urbanization rates grow, so does the demand for intelligent buildings. Use of cutting edge technology has become key to enable building owners and developers to bring their tenants a superior user experience, greater convenience and higher efficiency.

This demand calls for an intelligent transit management system that can cater to the individual needs of building owners and tenants, boost transportation efficiency and offer an exceptional user experience.

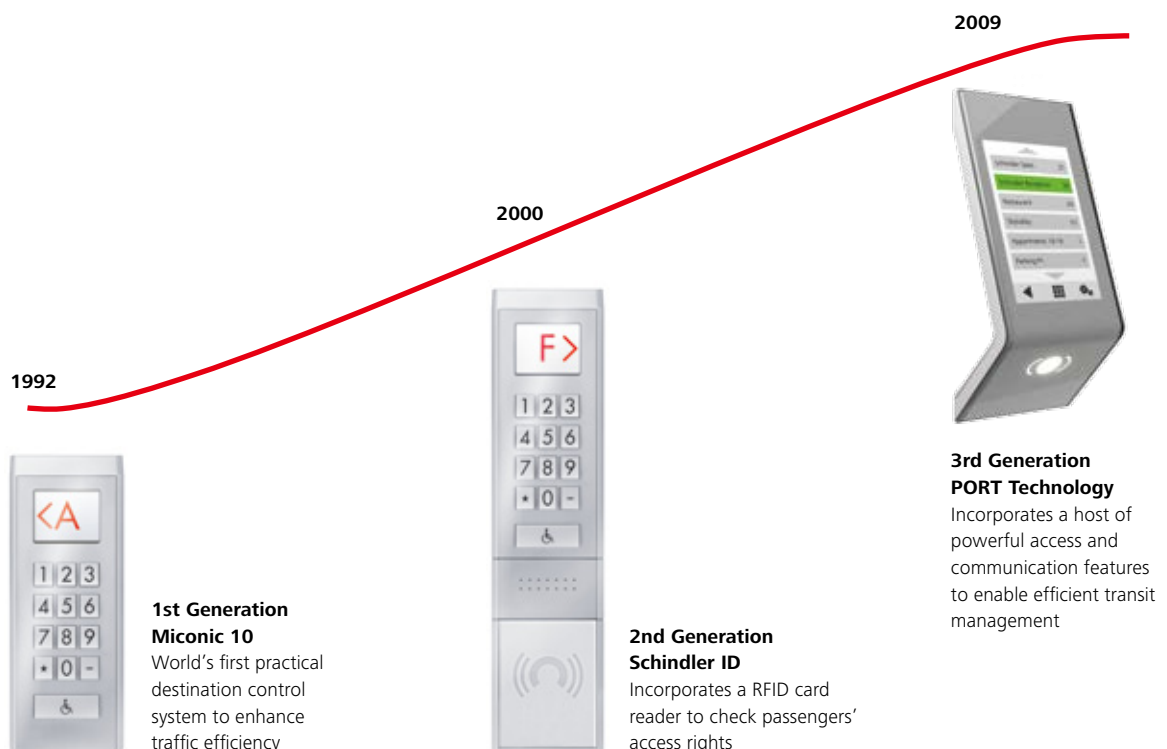The PORT (Personal Occupant Requirement Terminal) Technology is the 3rd generation of destination control system first pioneered by Schindler in the 1990s.

The intelligent software powering the PORT Technology runs on a highly advanced algorithm that continuously reviews traffic patterns and systematically optimizes traffic handling efficiency throughout the day.

The PORT Technology, which integrates powerful communication, security and energy saving features, has revolutionized the way people move through buildings seamlessly and efficiently.

The evolution of transit management

1992

1st Generation Miconic 10
World's first practical destination control system to enhance traffic efficiency

2000

2nd Generation Schindler ID
Incorporates a RFID card reader to check passengers' access rights

2009

3rd Generation PORT Technology
Incorporates a host of powerful access and communication features to enable efficient transit management

Personal
Occupant
Requirement
Terminal

The PORT Technology is the latest generation of transit management system. Integrating efficient traffic management and a host of powerful access, communication, security and energy saving features, PORT has revolutionized the way people move through buildings seamlessly and efficiently.

Benefits at a glance

A boost to traffic performance
By grouping passengers going to the same floor to take the same elevator, PORT avoids chaotic elevator runs and random, multiple stops, thus providing the shortest possible journey for every passenger.

User-friendly operation
A user simply needs to swipe his personal access card at the PORT terminal for a lift to be immediately assigned to take him to his destination.

Excellent personalized service
PORT ensures each journey is customized to meet individual requirements, whether it is more walking time, longer door opening time or more space for passengers with special needs.

Energy saving
During non-peak hours, the Energy Control Option (ECO) mode sets several elevators into standby or sleep mode. This prevents elevators from making an unnecessarily large number of trips to transport only a few passengers.

Enhanced building security
Elevator calls can only be made with pre-programmed access cards, with passengers' access rights defined by the building management. PORT can also be integrated with turnstiles to further enhance building security.

Combining discretion with convenience
PORT can be programmed to only display to public visitors general purpose floors that can be accessed without the use of an access card.

Smart building management
PORT can be easily programmed to accommodate a wide range of needs in real time, such as providing a particular tenant with a higher level of personalized service or communicating clear messages to occupants during an emergency.
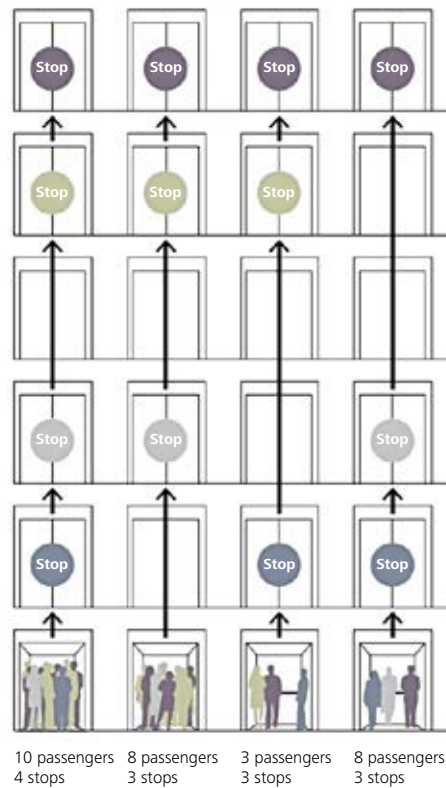
Stylish touch screen design
Inspired by the latest design and architectural trends, the PORT terminals feature sleek glass touch screens and are available in wall-mounted or pedestal-mounted versions.
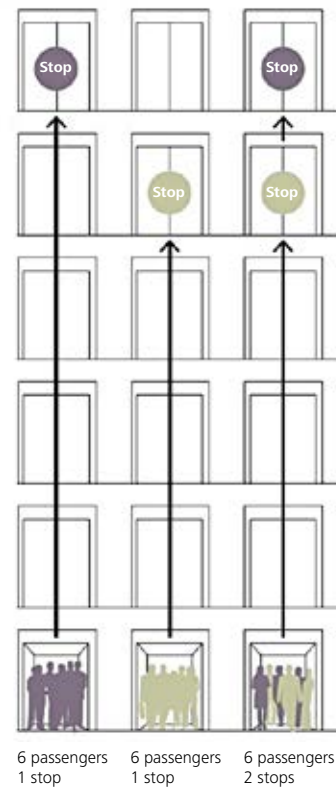
Intelligent transit experience

A boost to traffic handling performance

Riding on Schindler's 20 years of experience pioneering intelligent traffic management system, the advanced algorithm powering PORT fully optimizes the way elevators are allocated to take passengers to their desired destinations.

By selecting the destination floor before entering the elevator, passengers going to the same floor will be directed to take the same elevator. The system reduces the number of intermediate stops for each round trip, enabling the elevator to return to the main lobby sooner to collect more passengers.

| 10 passengers 4 stops | 8 passengers 3 stops | 3 passengers 3 stops | 8 passengers 3 stops |

Conventional System

| 6 passengers 1 stop | 6 passengers 1 stop | 6 passengers 2 stops |

PORT Technology

The intelligent components of PORT

PORT features a color touch screen and a card reader that allow building occupants to communicate their requirements to the system.

PORT's unique ability to recognize and act on each individual user requirements means the technology not only brings traffic performance to unprecedented levels, but also provides a secure, personalized and seamless transit experience to all building occupants.
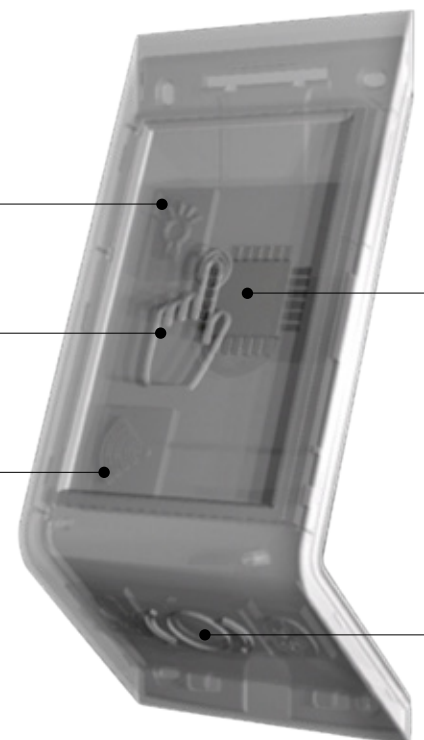
Ambient Light Sensor
Adjusts brightness level to ambient light condition to minimise power consumption

High Resolution Touch Screen
Displays clear information

Proximity Sensor
Activates the system when an approaching user is detected

PORT recognizes the specific requirements of every individual user and personalizes every trip accordingly

User-friendly operation

Simply swipe your personal access card at the touch screen PORT terminal. Within less than a second, PORT will validate your access right and assign an elevator to take you to your destination in the most efficient manner.

Floor 5

Floor 4

Floor 3

Floor 2

Floor 1

Lobby

6 passengers
2 stops

Fast microprocessor
Low energy
consumption,
high computing
power

Card Reader
Uses radio frequency
identification
(RFID) technology
to identify users

Step 1
Present your access card at the PORT terminal

Step 2
Read the elevator assignment

Step 3
Walk to the assigned elevator and enjoy the ride

Enhanced security

First line of defense

Elevator access forms a vital part of a cohesive building security architecture. The PORT Technology brings a number of powerful access control features that help curb unauthorised access to a building while preserving a smooth and contemporary experience.

With PORT, elevator calls take place outside the elevator. The elevator system thus becomes the building's first line of defense, barring access to anyone without proper credentials.

Pre-programmed operation

Elevator calls can only be made with pre-programmed access cards, with tenant and visitor access rights defined by the building management.

Contextual operation

On each typical floor, PORT can be programmed to display only floors that users are allowed to access.

PORT plays a significant role in enhancing building security. The system brings a host of access control features to maximise vigilance in a building.

Elevator calls can only be made with pre-programmed access cards with access rights granted by the building management.

Forward credentialing

To ensure the security and safety of building occupants, the use of credentials is essential. When the Forward Credentialing feature is activated, PORT ensures that if an access card is not used to gain entry to a certain floor, it can be barred to access any other floors, without being first returned to the lobby for a reset.

Forward credentialing addresses a common situation of someone who does not use his card to make a call and shares an elevator with other users.

PORT on turnstiles

PORT can be integrated with any barriers or turnstiles to further enhance building security. Two PORT terminals per turnstile provide an aesthetically pleasing two-way card reader and instruction screen combination. Turnstiles, if specified, can be controlled by the PORT Technology through a simple interface. Access credentials are verified at the turnstile when users swipe their personal access cards at the PORT terminal. Depending on the situation, a lift may be immediately allocated or PORT may simply display an entry or exit signal.

PORT can be integrated with turnstiles to further enhance building security. Two PORT terminals per turnstile act as a two-way card reader and instruction screen to verify credentials, allocate elevators and communicate with users.

Anti-pass back

The PORT Technology also incorporates an anti-pass back feature to ensure that once a card has been used to gain entry through a barrier, it can no longer perform this task until it has been used to exit the building. This ensures that only one user can access the building using an individual card and therefore substantially reduces the possibility of system abuse.

Powerful Personalization

Flexible User Interface

PORT opens up a wide range of possibilities when it comes to delivering a personalized user experience. Designed to meet the specific needs of a building and those of its individual occupants, the PORT Technology comes with a versatile user interface that ensures the highest level of vigilance – in total convenience.

RFID Card Access
Where a passenger has access rights to only one specific floor, an elevator to that floor will be allocated as soon as his access card is presented.

Touch-less operation
If a card is held continuously at the PORT terminal, each authorized destination will be highlighted in turn, until the user makes his choice by removing his card.

Keypad
At all times, a 10-digit keypad display can be summoned to enter a floor to which the user has access.

Pre-programmed display
User simply need to select their destination floors on the touch screen for PORT to allocate an elevator.

Designed for equal access

The PORT Technology has been designed as an equal access system based on the principle of catering to everyone's personal needs. A person in a wheelchair may need a little extra space and more time to get to the elevator and through its doors that are held open a little longer. A visually-impaired person can be directed via audible and visual cue identifying the elevator number and its arrival will assist the user find and enter the elevator.
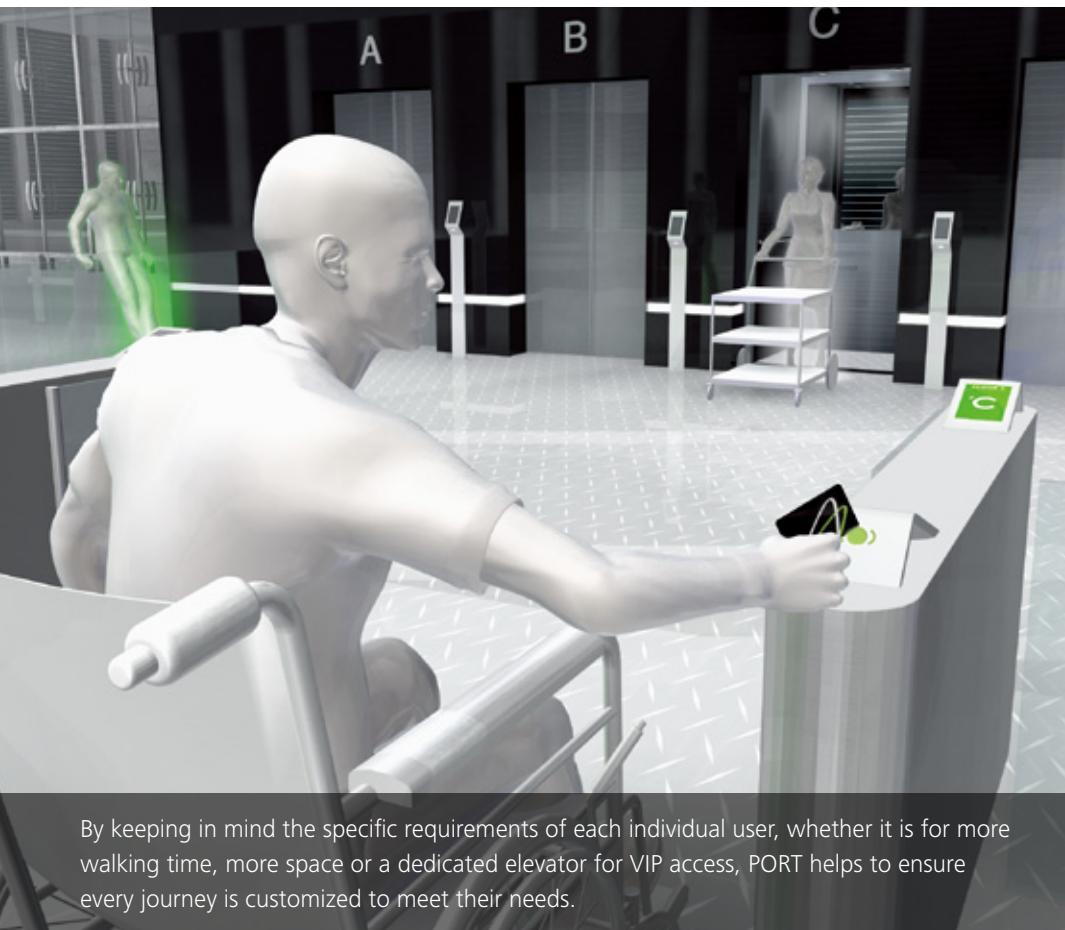
By keeping in mind the specific requirements of each individual user, whether it is for more walking time, more space or a dedicated elevator for VIP access, PORT helps to ensure every journey is customized to meet their needs.

PORT, when require, features a raised access button with braille to assist visually-impaired passengers.

An Effective Tool for Building Management

Visitor management

PORT offers a simple and effective integrated solution to program visitor access within a building.

Access cards for building tenants and visitors can be conveniently programmed at the reception or concierge desk.

Real time security

The use of access cards allows management to track movements for security purposes on a real time basis.

The PORT Passenger Report program can, on demand, quickly generate a report detailing all passenger movements throughout the building.

The report can be used to track, analyze and respond swiftly whenever required, for instance in case of an unauthorized entry.

Information such as the time of users going in and out via turnstiles or elevators, departing and arrival floors, can be recorded for security purposes.

The program also features various analytical tools to assist building management in analyzing passenger movements and assessing the elevator service level.

The PORT Technology Passenger Report program can be easily installed within the building to provide management with the flexibility to monitor for any breach of security access.

Emergency signalization

In the event of an emergency, the ability to communicate with tenants accurately and efficiently is essential. PORT can turn into a valuable communication tool in such situation.

The PORT terminals can be pre-programmed to display clear instructions to tenants approaching the lift lobby, for instance whether they should wait for the lift service or take the stairs.

Once activated, the pre-programmed message can be displayed on all PORT terminals in the building within a short instant.

Emergency communications can be made specific to the circumstances of any particular building and assist by quickly responding to the situation at hand.
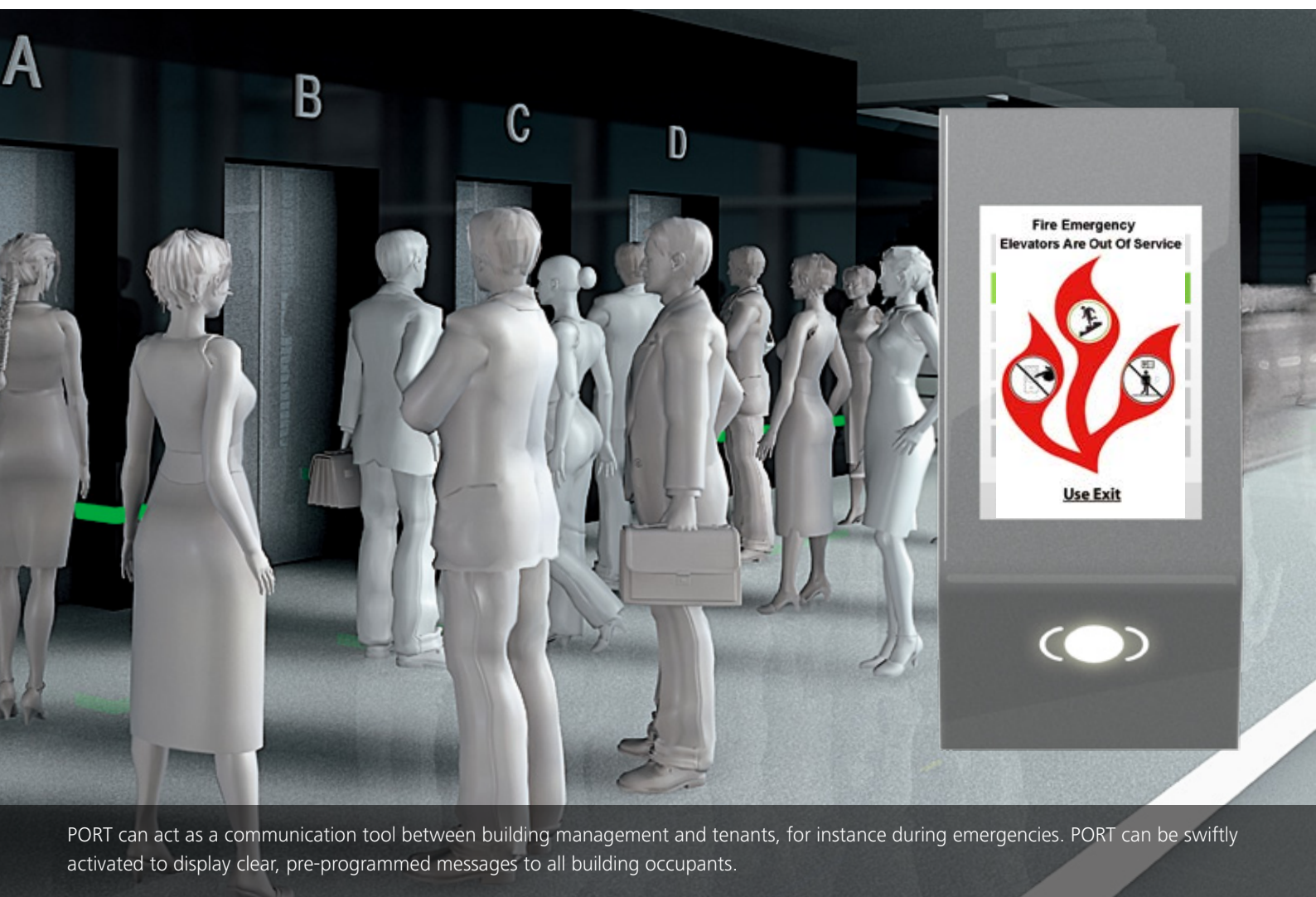
PORT can act as a communication tool between building management and tenants, for instance during emergencies. PORT can be swiftly activated to display clear, pre-programmed messages to all building occupants.

Green innovation

Energy Control Option (ECO)

Typically during non-peak hours, all elevators in a group are still in operation to ensure passengers reach their destinations as quickly as possible. This means that elevators may make many trips with just one or a few passengers. Furthermore, a lightly loaded elevator actually consumes a high amount of energy due to the larger weight difference between the elevator car and the counterweight.

PORT Energy Control Option (ECO) was designed to address this situation and provide significant energy savings while maintaining the service level.

How it works

The unique PORT Technology ECO allows the average acceptable waiting time to be defined for a specific building.

Once activated, the ECO mode continuously looks at travelers' waiting time. Whenever the current and expected waiting times fall below a specified threshold, the system sets non-essential elevators in the group into energy saving standby or sleep mode.

This reduces the number of elevator trips and – due to the improved balance of the elevators – should save energy for the trips undertaken.

TYPICAL ELEVATOR GROUP

Energy Used   Waiting Time

Low Traffic   High Traffic
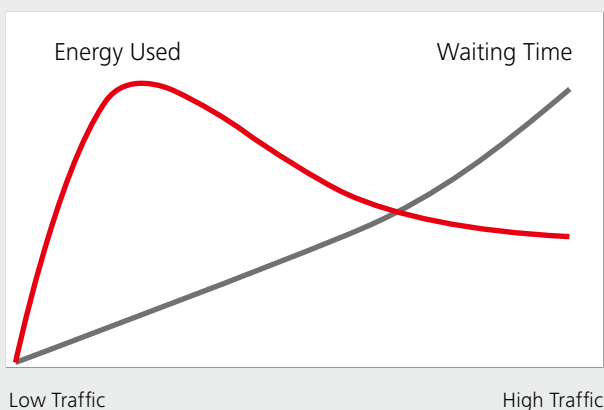
Energy consumption can be particularly high in low traffic condition due to the unbalanced load between the elevator car and the counterweight.

ELEVATOR GROUP IN ECO MODE

Energy Used   Waiting Time

Specified acceptable waiting time level

Low Traffic   High Traffic
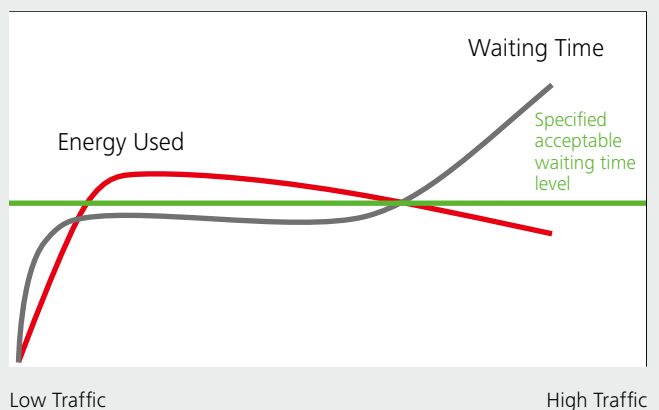
Once the ECO mode is activated, energy consumption is optimized during low traffic condition while maintaining passengers' waiting times at an acceptable level.

Green by design
Zuellig Building, Philippines

Developer: Bridgebury Realty Corporation
Architect: Skidmore, Owings & Merrill
Building type: Commercial (Office & Retail)
Building height: 33-story

- Zuellig Building was the first high-rise building in the Philippines to earn certification from the U.S. Green Building Council at the LEED Platinum level.

- Many features of the resolutely green building were specifically designed to prevent unnecessary power consumption.

- The PORT Technology was selected to contribute to this vision.

Wide range of applications

The PORT Technology can fit any new or existing building, be it a high-rise office building, a mixed-use complex, a luxury condominium, a hotel or a hospital.

Offices and commercial buildings
PORT Technology is the latest generation of transit management system which provides tenants a smart and smooth journey through out the building. It delivers exceptional outcomes in traffic and energy efficiencies, sleek human interfaces and enhanced building security.

Benefits of PORT for hotels

Enhanced traffic performance during peak hours.
Exclusive guest experience. Avoids chaotic situation where guests need to rush to slot key cards into the card reader inside the elevator.
Enhanced security. Elevator access is determined at the lift lobby, depending on pre-programed access rights.
Seamless one card access through integration with room key card registration system.
Freedom of elevator lobby arrangement.

Benefits of PORT for residential buildings

Enhanced building security as elevator calls are made outside the elevator with pre-programmed access cards.
Exceptional personalized experience as PORT recognizes the unique requirements of each building occupant.
Convenient visitor management interface.
Lavish modern touch screen design.

Elegant Design

Enabling a wide range of applications, Schindler's PORT terminal combines inspired design with state-of-the-art technology.

Available in wall or pedestal-mounted versions, the PORT terminal features a 7", 480 x 800 pixel touch screen mounted above a RFID card reader.

Technical Details

Dimensions (WxHxD)	126.5 x 284 x 77 mm (4.98 x 11.18 x 3.03 inch)
Screen	7", 480 x 800 pixel, capacitive touch glass panel
Back-light and standby-mode	LED include lifetime extensions by adaption to ambient light level
Energy Consumption	Max. 5 W per PORT
Standby mode	Yes, due to proximity sensor
Supply	Either 24/48 VDC or Power over Ethemet (IEEE 802.3af)
Card Reader Frequency	13.56 MHz
Card Reader Protocols	ISO14443A, ISO14443B
Standard card types	Mifare Classic, Mifare Ultra Light, Mifare 1K, Mifare 4K (all other cards have to be pre-qualified by our test service center before used)

PORT 1.1 Wall-mount

Dimensions (WxHxD):
126.5 x 284 x 77 mm

Pearl White　　　**Silver Grey**　　　**Black Matt**

PORT 1.2 Wall-mount (Glass version)

Dimensions (WxHxD):
126.5 x 284 x 77 mm

Pearl White　　　**Silver Grey**　　　**Black**

PORT 1.2 Pedestal (Glass version)

Dimensions (WxHxD):
126.5 x 1247 x 77 mm

Pearl White　　　**Silver Grey**　　　**Black**

PORT 4.2 Flush-mount (Glass version)

Dimensions (WxHxD):
154 x 606 x 21 mm

Pearl White　　　**Silver Grey**　　　**Black**

For more design options, please contact our sales representatives

The City of PORT Technology

The PORT Technology has the ability to accommodate the most innovative interior layouts, offering architects greater creative freedom.

Today, many next-generation buildings powered by the PORT Technology are already transforming our urban environment and lifestyle.

The PORT Technology provides a truly differentiated service level; a whole new level of building transit experience to occupants.

International Commerce Centre,
Hong Kong

A proven technology showcased throughout the world

Park Ventures, Thailand

Integra Tower, Malaysia

Rasuna Tower, Indonesia

Other selected references

Indonesia	Ciputra World Jakarta
	Chase Tower
	International Financial Centre 2
	Bahana Tower
	Rasuna Tower
	Thamrin Nine – Tower 1
Hong Kong	One Bay East
	Shanghai Commercial Bank
Malaysia	Continental City
Singapore	HSBC Headquarter
Taiwan	Yuanlih residences
Thailand	AIA Tower
	The Stock Exchange of Thailand
Vietnam	IndoChina Plaza
	Lotte Centre Hanoi
	Viglacera Complex

When each journey through your building is perfect, everything changes.

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