Schindler Modernization with PORT Technology

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Schindler

Staying Ahead of the Game

Keep your buildings competitive with new technologies
In an increasingly sophisticated and tech-savvy environment, staying ahead often implies providing impeccable services powered by best-in-class technologies.

The good news? Any building can now compete – thanks to the PORT Technology.

Existing elevator systems can be upgraded – effortlessly – to the latest technologies and designs.

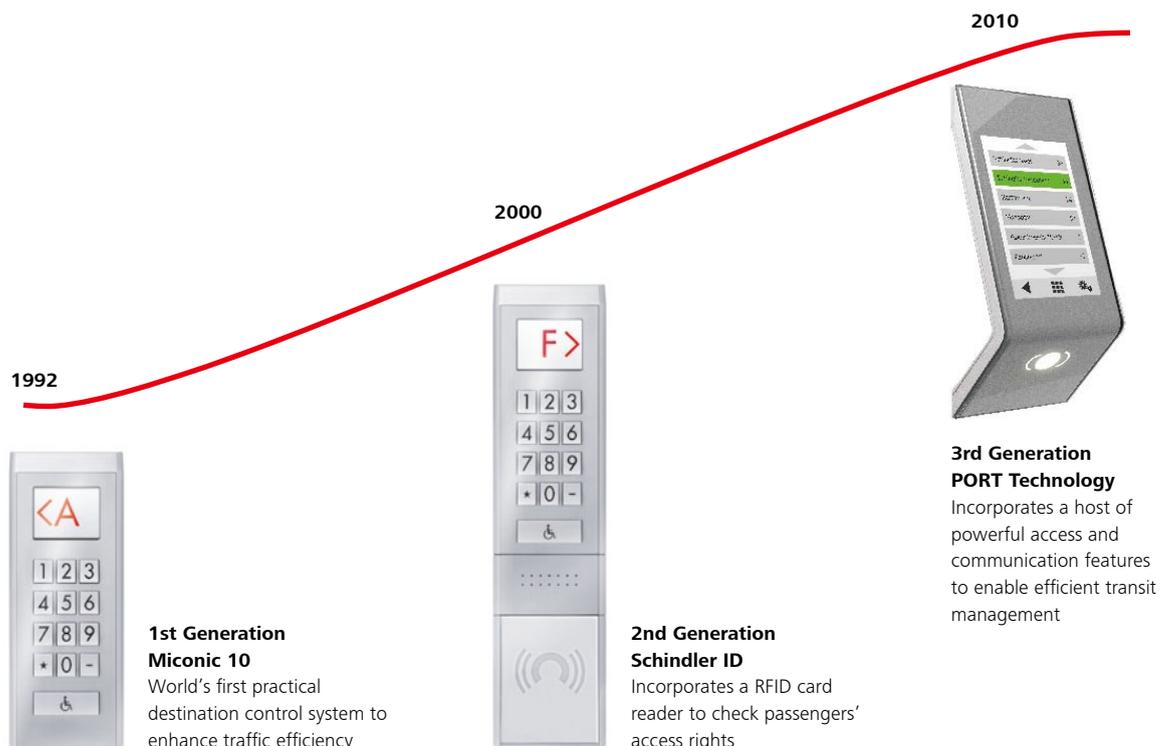**An immediate boost to performance and prestige**
Noticeable crowds, long queues, noise and vibration, Access Control concerns: any such issue can be swiftly remedied in two simple steps.
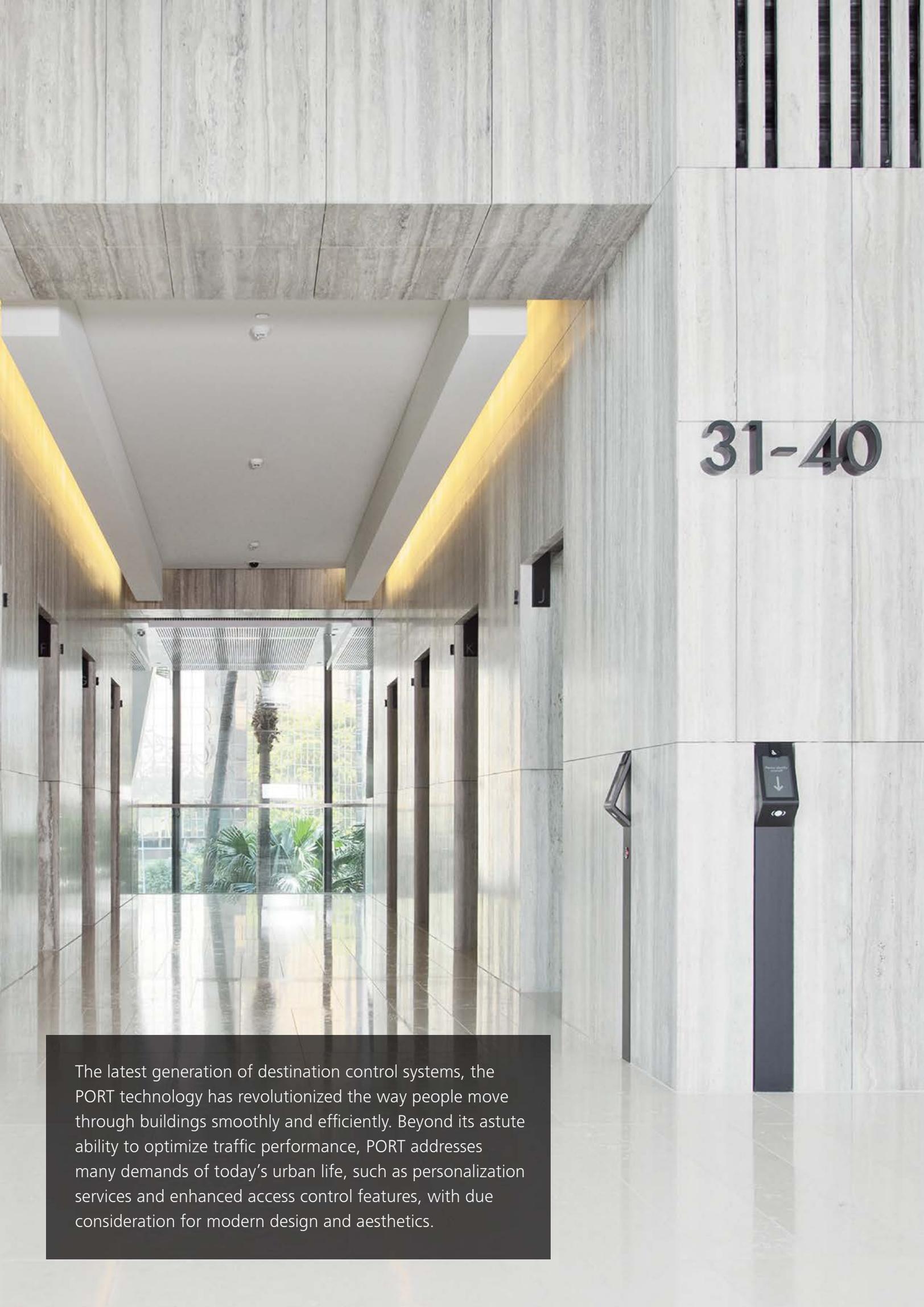
First, secure an immediate boost in performance by unleashing the power of Schindler's PORT Technology.

Second, leverage on PORT's efficiency gains to proceed with upgrading other equipment, one elevator at a time.

This patented modernization process – PORT Overlay – will deliver a rejuvenated, state-of-the-art elevator system fitted with the most advanced destination control system, seamlessly and without disturbance to building occupants.

The evolution to transit management

2010

2000

1992

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

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

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

The latest generation of destination control systems, the PORT technology has revolutionized the way people move through buildings smoothly and efficiently. Beyond its astute ability to optimize traffic performance, PORT addresses many demands of today's urban life, such as personalization services and enhanced access control features, with due consideration for modern design and aesthetics.

Introducing Personal Occupant Requirement Terminal (PORT)

User interface taken to an entirely new level

To provide seamless services to your tenants as they go about their business, it is essential to have a dependable method of communicating with them.

Schindler's revolutionary PORT Technology has made the science of moving people within a modern building smooth and highly efficient – and communication is the key.

Besides boosting traffic performance to unprecedented levels, PORT delivers a full range of control and communication functions accessible from a wide variety of locations.

Supporting these functions, PORT's hardware design is as reliable as it is elegant, and can be easily configured to suit the most innovative architectural designs.

Stunning. Sophisticated.

The PORT terminal is the face of the technology and your portal to communicate with building occupants.

Fully versatile, the PORT terminal can be wall mounted or installed as a freestanding pedestal.

As easy as 1,2,3

Using PORT is easy:
1. Choose your destination via the touch screen or swipe your RFID card.
2. Read you elevator car assignment.
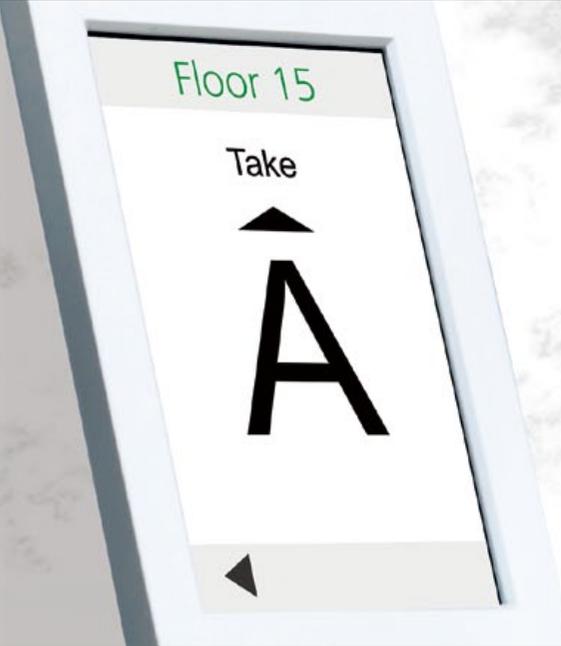3. Enter your assigned elevator and enjoy the ride.

A user swipes his personal access card at the touch screen PORT terminal. Within less than a second, PORT checks his admission rights and allocates the elevator that will take him to his destination in the most efficient fashion.
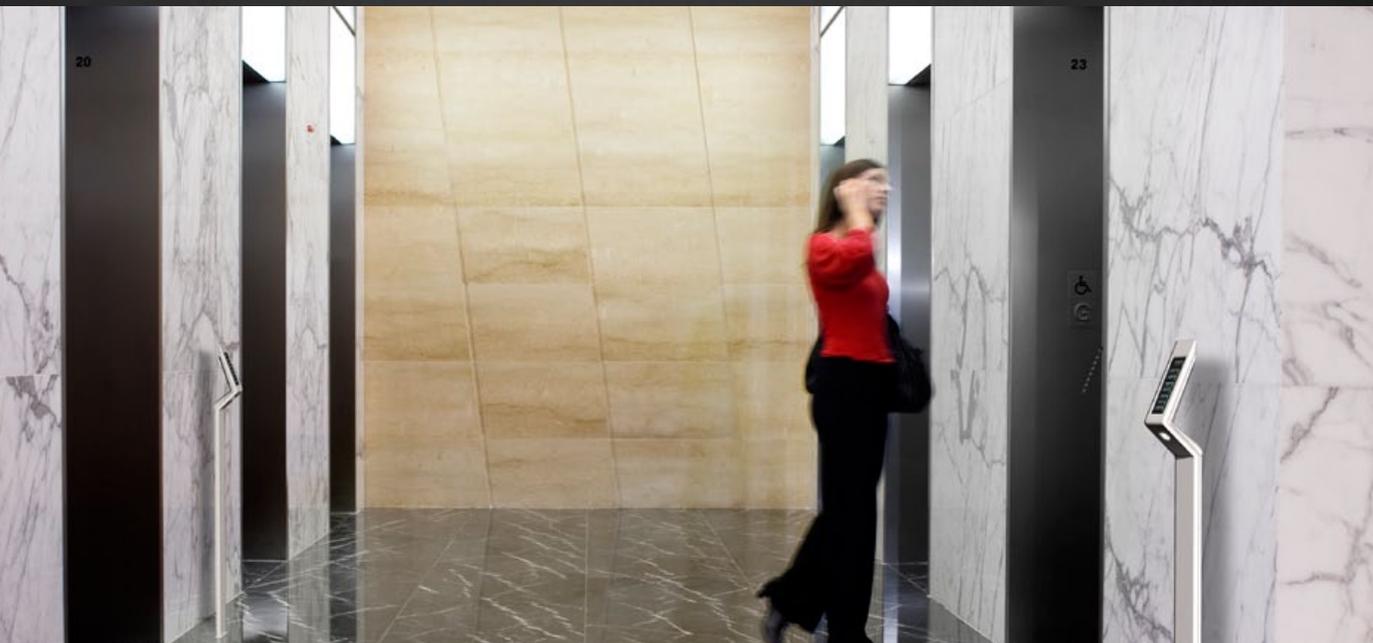
Step 1

Step 2

Floor 15

Take

Step 3

An unbeatable proposition

Best-in-class technologies are within reach with PORT Modernization

A boost to traffic performance

Schindler's PORT Technology continuously identifies the most efficient way to transport building occupants. The latest achievement of dedicated research stretching over 20 years, the 3rd generation PORT is the pinnacle of destination controls.

At its core, sophisticated algorithms run round the clock to ensure the optimal utilization of an elevator group. PORT eliminates chaotic elevator runs and random stops at numerous floors, and transports passengers swiftly and efficiently.

Enhanced Access Control

Access Control is a powerful feature of the PORT Technology. PORT helps your elevator system play a significant role in controlling access within your building while performing at peak efficiency.

User credentials can be verified by matching preprogrammed RFID cards with records kept in a secure central database. PORT terminals can be easily integrated with turnstiles.

Stylish touch-screen designs

There is a cutting-edge and sophisticated appeal to the PORT Technology. While its inner, ingenious workings speak of modern efficiency, the stylish ergonomics and contemporary look of its touch screen user interface, the PORT Terminal, never fail to impress.

Impeccable personalized services

PORT Technology proprietary software opens up a limitless universe of possibilities when it comes to personalized user experience.

Designed to address individual mobility needs, PORT has the power to create a distinctive experience adapted to the requirements of any particular passenger or situation, including passengers with disabilities or in need of express or exclusive transit.

PORT Distinctive Features

User Convenience

Elevator assignment

With a simple swipe of a pre-programmed card, an elevator is automatically assigned. PORT makes possible an individualized experience, defined by specific user rights requirements, from simple access control to highly restricted use.

Personalized service

PORT helps to ensure every journey is customized according to the exact requirements of a user, such as more time to walk to the elevator or keep its doors open for a longer time, more space or the assignment of a specific elevator.

Visitor Management

Visitor card management

PORT offers a simple and effective integrated solution to program visitor access within a building.
Visitor will be able to obtain the access card quickly and efficiently from the concierge and return after use.

Touch Screen or Touch-less operation options

A card can be pre-programmed to automatically request a specific destination, depending on the originating floor.

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.

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.

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.

Access Control features

Seamless integration with turnstiles

To further enhance building access control, the PORT Technology can be seamlessly integrated with the turnstiles through a simple interface. Admission credentials are verified when users swipe their personal access cards at the PORT terminal.
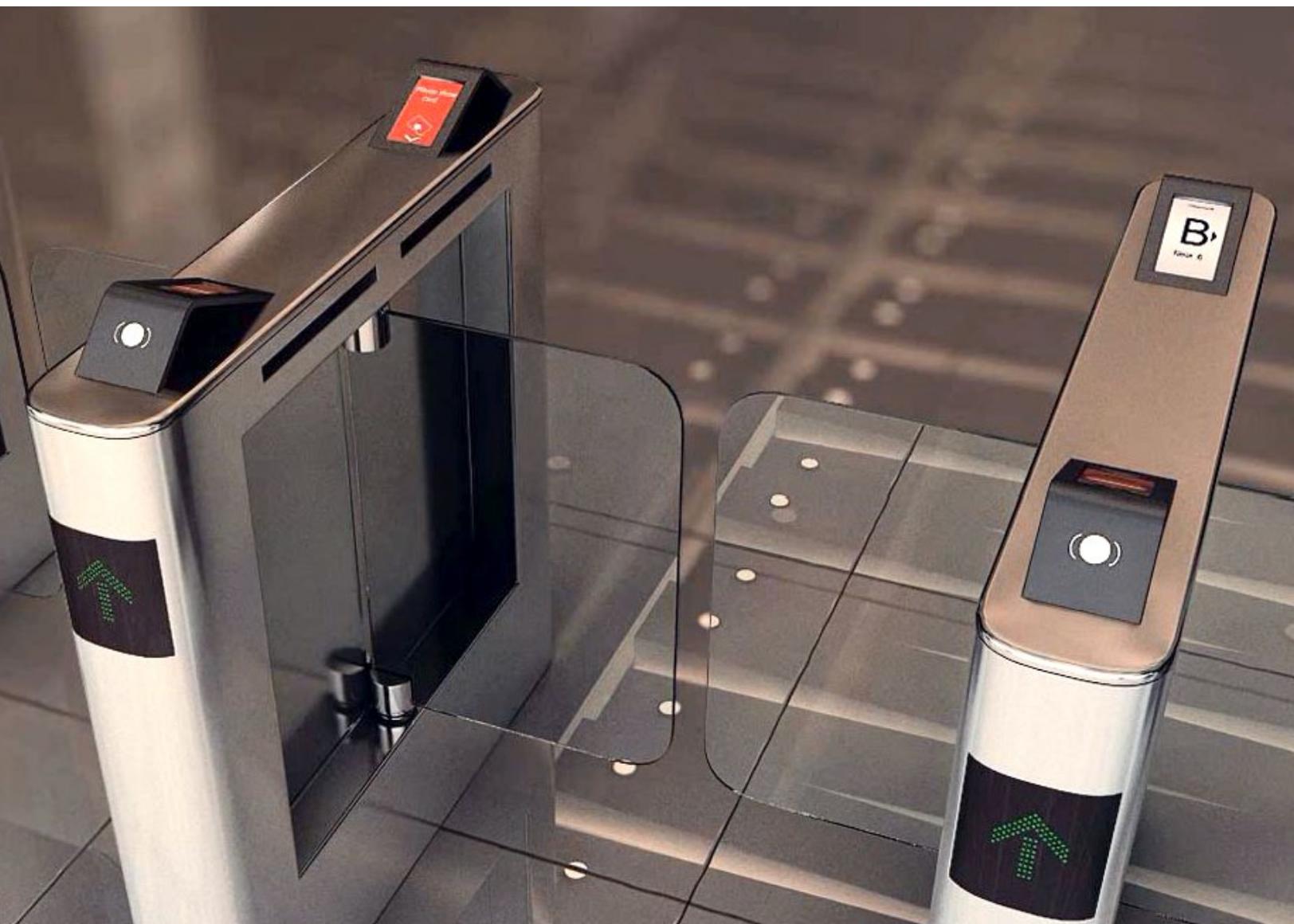
Anti-pass back

A card cannot be used a second time if passed back across the turnstile by the original user.

Forward credentialing

Invalidates or limits a card's operations. If the card is not used correctly when required for access, the card could be invalidated the next time it is used. For example, if a user does not use his card to gain entry to a certain floor, he could be forbidden to access a different floor with his card with the exception of going back to the main lobby to reset the card.

Passenger movement report

The PORT Passenger Report consolidates accurate records of tenants and visitors flow throughout the building. This allows the building management to monitor and analyze movements for access control purposes.

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 Ethernet (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

PORT Overlay Modernization
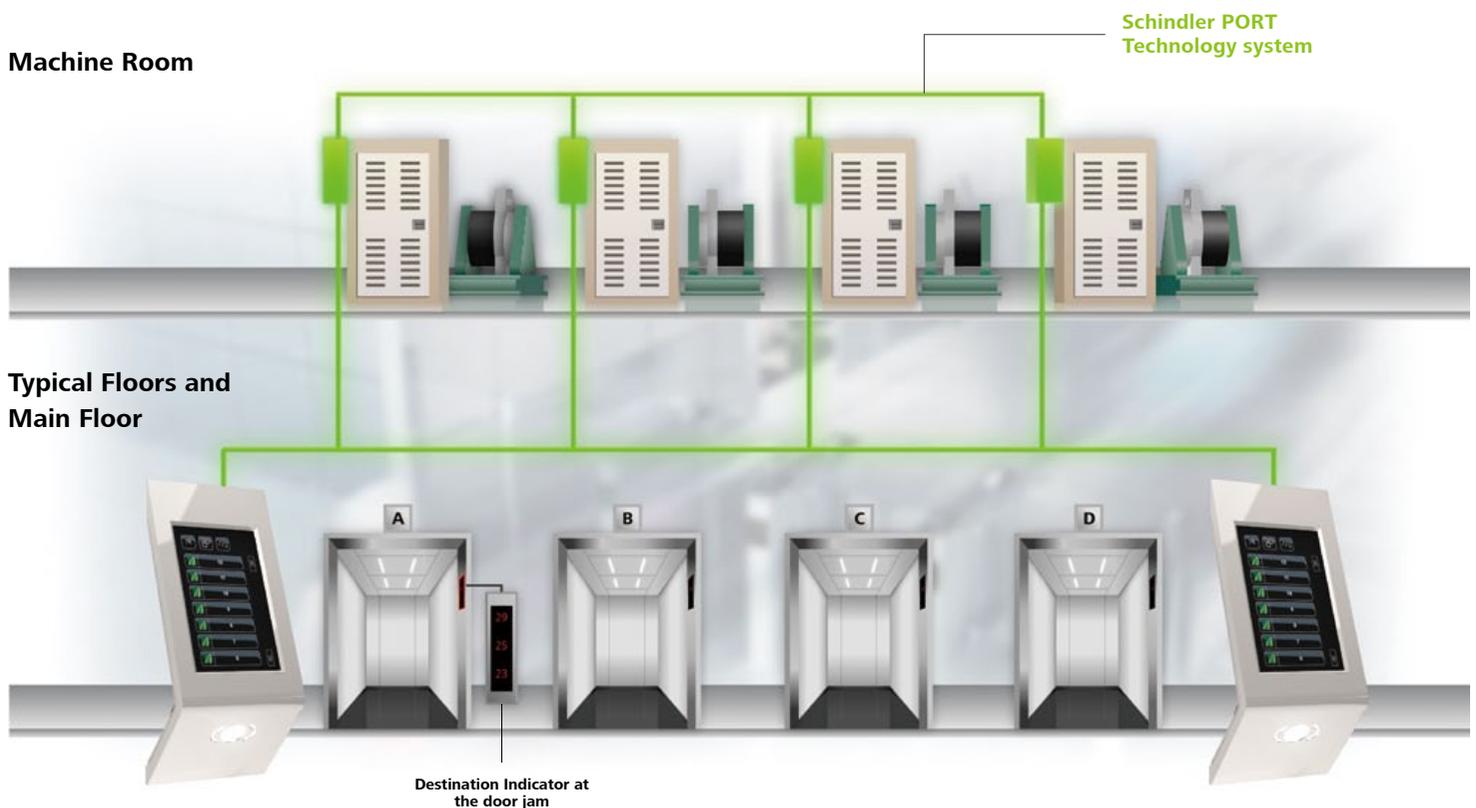## Modernization made seamless and easy

With the vision that a modernization exercise should be carried out largely unnoticed by the building occupants, Schindler developed PORT Overlay Modernization.

This ingenious modernization methodology leverages on PORT's ability to instantly boost the overall traffic performance of an elevator group and allows individual cars to be taken out for upgrade and be added back to the group seamlessly.

This process ensures the entire modernization is carried out with no disruption to service or inconvenience to the building occupants.

From day one, your elevator group can actually handle more traffic than ever before, even as individual cars are still being modernized.

PORT Overlay is compatible with most elevator control systems. The proven technology has been successfully deployed in many installations worldwide.

Schindler PORT Technology system

Machine Room

Typical Floors and Main Floor

A   B   C   D

Destination Indicator at the door jam

How does it work?

As elevators are being upgraded one at a time, the current and the new elevator controllers will temporarily co-exist. PORT Overlay involves integrating both systems under one single control while modernization is carried out. Not only your elevator group can immediately start reaping most of the benefits of the PORT Technology, each individual elevator can also be upgraded without causing any inconvenience and can be seamlessly reintegrated upon completion.

Phase 1.
Add PORT to your existing elevators.

Machine room

Typical floors and main floor

Step 1:

The PORT Technology system is connected to the existing elevator controllers.

Machine room

Typical floors and main floor

Step 2:

- The entire PORT Technology fixtures, including wiring, PORT terminals and destination indicators, are installed but temporarily covered at this point in time.

- After informing the building occupants about the switch to PORT Technology, the existing in-car operating panels (COP) are covered and the PORT terminals uncovered.

Machine room

Typical floors and main floor

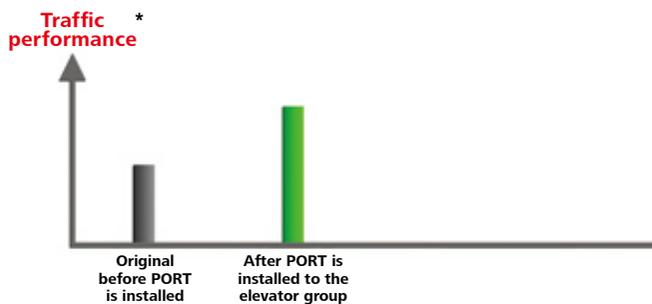**Destination Indicator at the door jam**

Step 3:

- Over a weekend, the overall elevator system is switched to PORT Technology, bringing an immediate improvement to traffic handling capacity.

- Building occupants start enjoying the features and functions of PORT Technology.
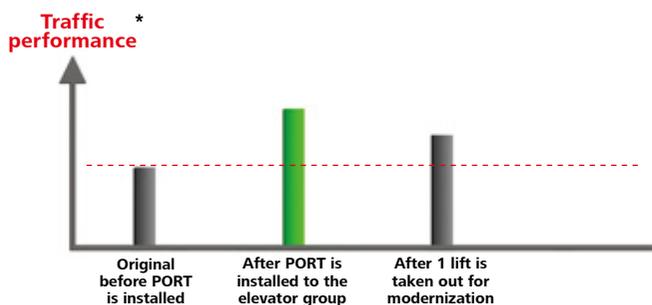
Phase 2.
Phased modernization. Transform your elevators.

Many older elevator systems need more than an upgrade of their dispatch systems. For safety, reliability or aesthetic reasons, your building may be in need of a full modernization. This can now be accomplished seamlessly with a phased approach using Schindler's patented PORT Overlay Modernization technology.
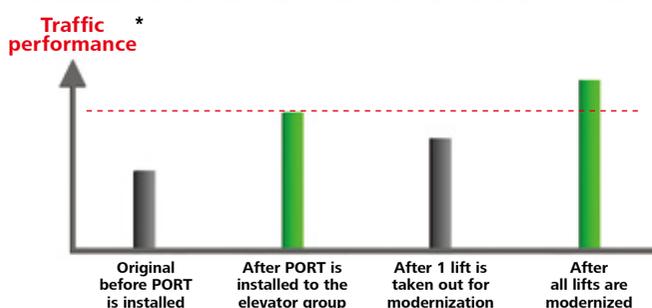

Traffic performance *

| Original before PORT is installed | After PORT is installed to the elevator group |

Step 4:

As the entire elevator group now runs on PORT Technology, the immediate boost to handling capacity allows individual elevators to be taken out of the group for modernization without significant impact to the overall elevator group performance.

Traffic performance *

| Original before PORT is installed | After PORT is installed to the elevator group | After 1 lift is taken out for modernization |

Step 5:

- One elevator at a time is taken out for modernization, and re-integrated seamlessly back into the group when completed.

- The new Schindler controller will thus co-exist with the former controllers equipping other elevators.

- Thanks to PORT, the traffic performance during modernization may still be better than the original performance, even with one elevator taken out of the group.

Traffic performance *

| Original before PORT is installed | After PORT is installed to the elevator group | After 1 lift is taken out for modernization | After all lifts are modernized |

Step 6:

- Old controllers are gradually upgraded, leading to further gains in performance

- After all controllers have been replaced, the elevator group can now deliver the highest levels of performance.

* The illustrations and traffic performance expressed here are indicative only. Please consult our sales representatives to carry out a traffic analysis on your existing building to obtain a traffic performance report that more accurately reflects the traffic performance of your building.

Office buildings

Enhanced building access control

HSBC Headquarter, Singapore

The building
HSBC Headquarter is a 21-story, prime office building located amidst the bustling hub of Singapore's CBD in Raffles Place. The building was completed in the 1980s and refurbished in 2007.

The modernization
6 passenger elevators were upgraded in 2012 with PORT technology to enhance efficiency and to ensure a higher level of access control.

Key Benefits:
- **Enhanced building access control:** Elevator calls can only be made with pre-programmed cards with access rights granted by the building management.

- **Integration with turnstiles:** PORT terminals are integrated with turnstiles to further enhance building access control. As user swipes his card at the turnstiles, the PORT terminal instantly displays the assigned elevator.

Modernization made seamless and easy

Jardine House, Hong Kong

The building
Completed in the 1970s, the 52-story Jardine House was one of Hong Kong's first skyscrapers. The Grade A office building houses the offices of many prominent corporations and the headquarter of Jardine Matheson.

The modernization
In 2008, the entire elevator system comprising 24 passenger lifts and 2 service lifts was first upgraded from conventional control to destination control.

In a second step, elevators were transformed by:
- Replacing former MG-Set drive systems with new eco-efficient and DC Power Factor 1 regenerative drives;
- Redecorating elevator cars and increasing car height;
- Upgrading door drives.

Key benefits:
- **Immediate performance increase:** The building immediately enjoyed the benefits brought by its new destination control system before the elevator modernization work started.

- **Minimize disturbance to building tenants:** The phased modernization of elevator cars made the entire process went largely unnoticed by the building occupants.

Hotels

Benefits of PORT for hotels

Enchanced traffic performance during peak hours. Exclusive guest experience. PORT avoids chaotic situation where guests need to rush to slot key cards into the card reader inside the elevator.
Enhanced access control. 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.

Bringing exclusive experience to guests

Hyatt Regency, New Orleans, USA

About the building
Opened in 1976, the 32-story hotel closed in 2005 due to hurricane damage. It reopened in 2011 following a major redesign and revitalization work including key technological additions designed to offer travelers ultra-modern comfort and style.

The modernization
In 2010, the PORT Technology was installed on 8 high rise passenger elevators.

Key benefits:
- **Increased comfort:** With elevator calls now made outside of the elevator with room key cards, guests no longer need to rush inside the elevator to slot their room key cards into the card reader and key in their destination floors.

- **Seamless one card access:** Each room key card is programmed to allow guests to make elevator calls.

Residential

Benefits of PORT for residential buildings

Enhanced building access control 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.

Exceptional personalized experience

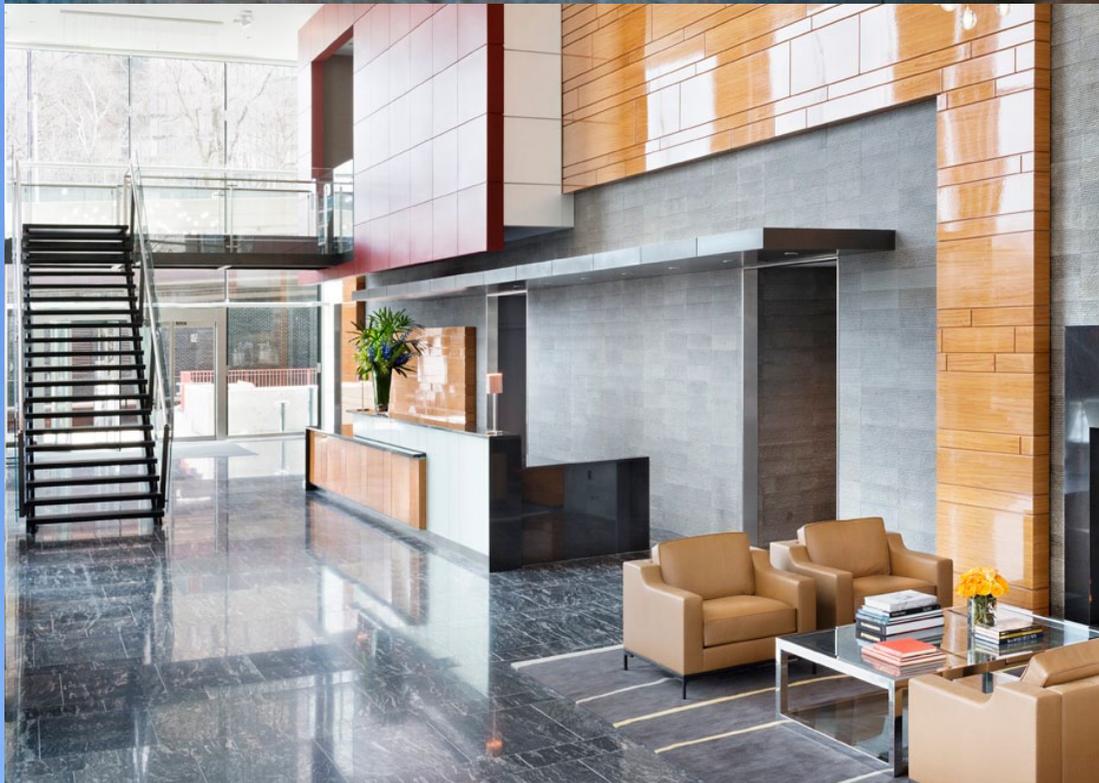### 500 Lake Shore Drive, Chicago, USA

About the building
The building is a prestigious 45-story high-rise residence with stunning glass façade and understated architecture design.

The modernization
In 2012, the PORT Technology was installed on 4 passenger elevators.

Key benefits:

- **Elevator as "First line of defense":** Elevator calls must be made outside the elevator with pre-programmed RFID tags, thus barring access to unauthorized visitors.

- **Personalized service:** The PORT Technology recognizes and responds to the individual needs of each occupant, such as sending a private elevator to pick up penthouse tenants.

Other selected modernization references

Tung Centre, Singapore

Lumpini Tower, Bangkok,Thailand

Tour Ariane, Paris, France

Marriott Marquis, New York, USA

A Partnership
Which takes you to the top

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The PORT
Technology