



High-rise solutions – Maintain.  
Revolutionizing performance with  
intelligent engineering.



**Schindler**



# Vision.

## Leading performance for products and services.

Schindler's high-rise track record is proof of our experience. You can count on our global network of high-rise experts which offers you – throughout the whole life-cycle of your building – an unprecedented level of service and quality. Our solutions are specified to suit every stage of the building:

### **Design**

Bringing form and function to life.

### **Install**

Pioneering new building methods.

### **Operate**

Optimizing the stream of people and goods.

### **Maintain**

Revolutionizing performance with intelligent engineering.

This refreshing perspective of 'Maintain' leads to a well-founded and carefully considered vision for your building.

Keeping our customers happy is something that is part of the Schindler ethos. We do this by keeping our units in constant uptime.

Whether through our around-the-clock call center, or our industry leading training and technology, our priority is to keep the one billion people who use Schindler products continuously moving every day.

# Schindler maintenance excellence.

## Platform and methodology.

### Engaged right from the start

The best maintenance plans are already created during the building planning process. Schindler designs all of its products with long-term maintenance in mind.

Schindler stands for reliability, safety, and longevity. We are committed to providing our customers with the absolute best service globally.

### Tools equipment

We always ensure our technicians have all the correct tools for any job.

### Field link

One of the technician's tools to ensure efficient and accurate diagnostics on site.

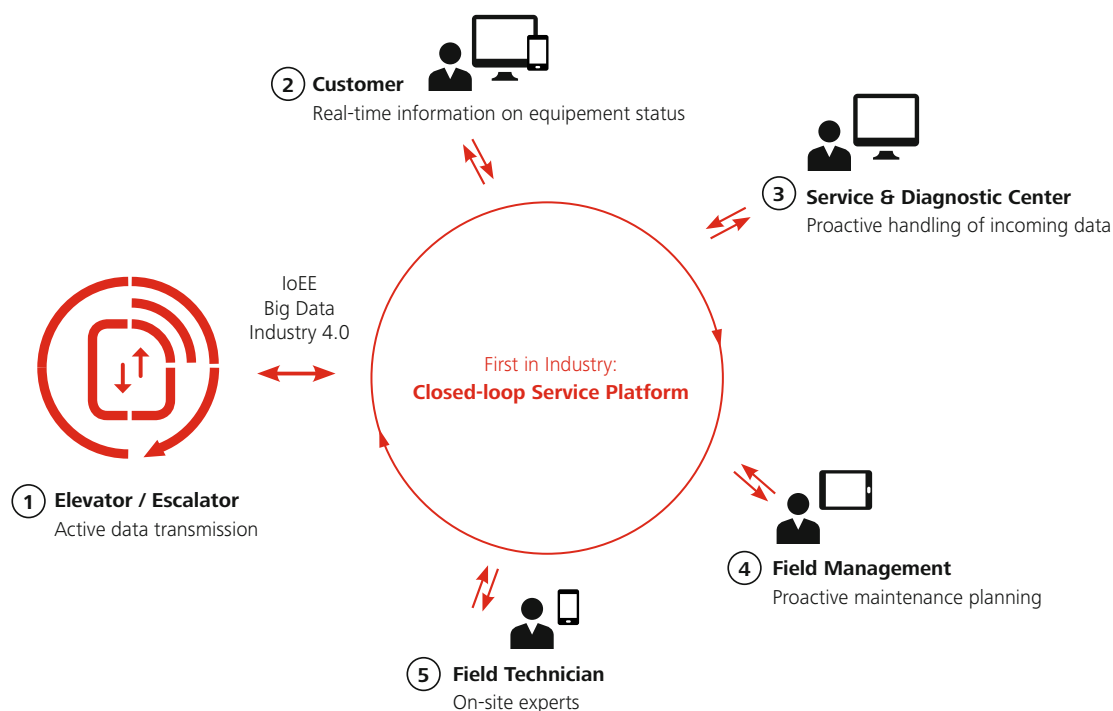
### 24/7 services

Schindler's call center dispatches or automatically re-routes the nearest Schindler technician to inspect the unit at hand.

### Automatic lubrication (ALS)

Allows drives to be lubricated automatically with the correct amount of grease and at the right greasing intervals.

### A new service cycle has been developed



## New Schindler high-rise maintenance concept

In order to provide sufficient predictive maintenance, the new methodology is based on the actual elevator usage. All Schindler high-rise elevator units are therefore inspected according to the number of trips they make, rather than according to a calendar-based system or any other pattern.

This allows us to manage your portfolio with advanced predictive maintenance of all high-rise elevators.

For Schindler elevators, there are three types of regular maintenance visit: inspection visit, extensive visit and yearly visit.

### Inspection visit

The purpose of the regular inspection visit is to check the basic condition of the elevator and the functioning of its components, in order to ensure that the elevator is operating correctly.

### Extensive visit

The extensive visit emphasizes the functionality of the elevator from the safety and reliability perspectives. It extends further the inspection principles of functional checks, measurement and adjustment of safety components, including components in the pit and underneath the car.

### Yearly visit

The yearly visit is a special form of extensive visit, which is conducted only once a year. In addition to all the tasks of a normal extensive visit, the yearly visit includes further safety tests of the components of the elevator system. These ensure that all safety components are functioning properly and that the elevator is operating in a safe condition.

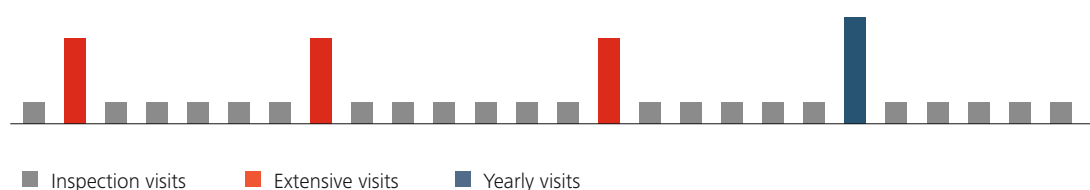
## Trip-based maintenance

The strategy has been simplified and is based on the actual usage of the elevators instead of the calendar.

The new method:

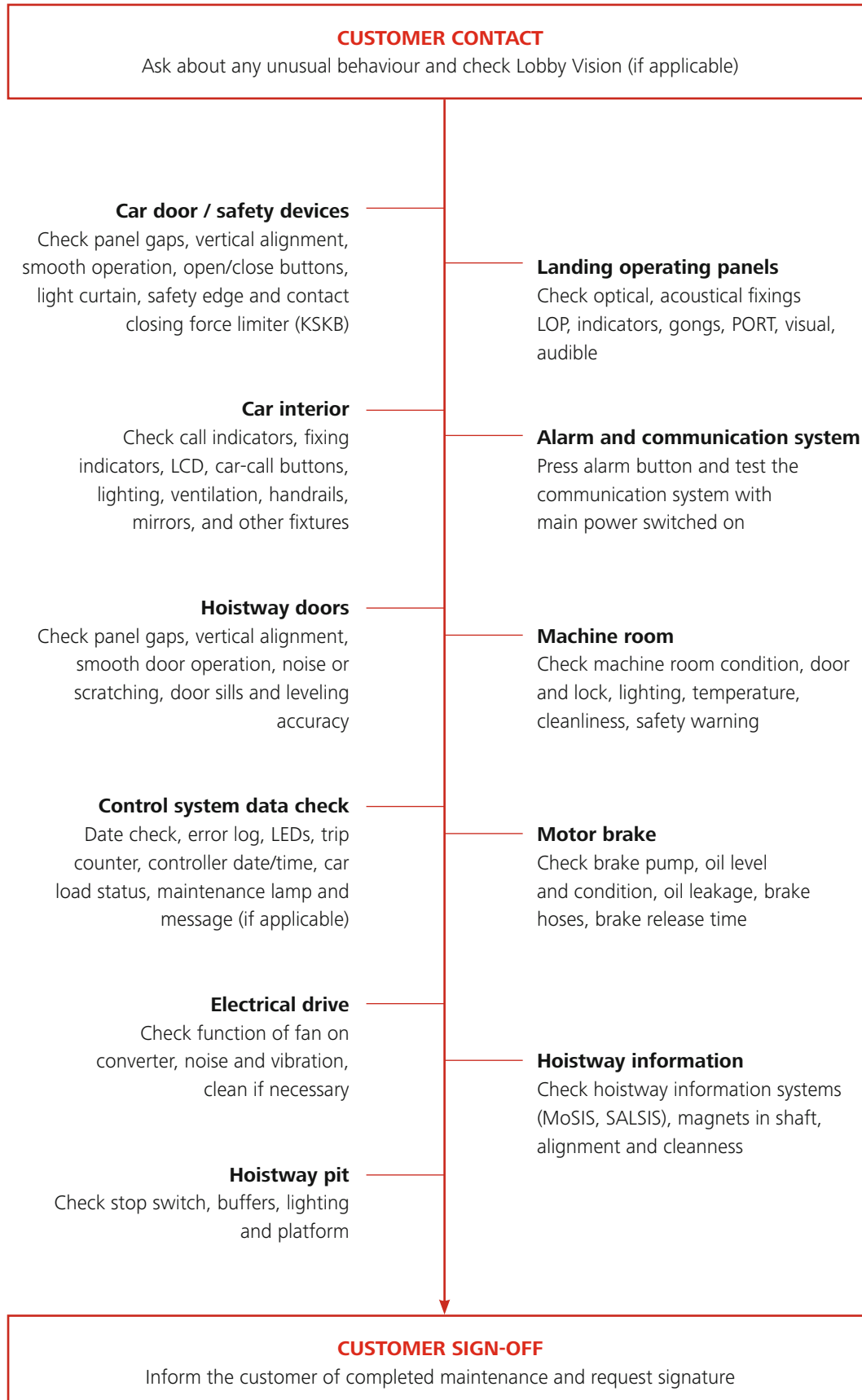
- low and normal usage elevators:  $\leq 400'000$  trips per year  $\rightarrow$  2 extensive visits per year
- high and heavy usage elevators:  $> 400'000$  trips per year  $\rightarrow$  4 extensive visits per year

In both cases the elevators undergo all the regular inspection visits too.



# The technician's journey.

## High-rise service – focused and safe.







# High-end traffic reliability. Enabling constant uptime.

## **Predictive maintenance in 24/7**

Schindler's commitment to preventive maintenance programs for your elevators will keep your equipment running safely and reliably. With trailblazing technology and highly trained technicians, this means fewer callbacks and fewer inconveniences for your tenants or guests.

## **Zero entrapments**

Schindler's call center dispatches or automatically re-routes the nearest Schindler technician to inspect the unit at hand. In the event of a breakdown, the technician will then inspect all necessary aspects of the elevator and inform the building management if asked to.

Should the unit contain passengers, Schindler's pioneering "Graceful release" technology automatically takes passengers to the next floor if any non-safety-related fault is detected in the system.

This allows passengers to completely avoid being entrapped in an elevator and to exit at the nearest floor to call another functioning elevator to take them to their destination.

## **Automatic Lubrication System (ALS)**

Schindler's intelligent components also play a significant role in the development of a building's uptime.

The newly introduced ALS allows all Schindler high-rise drives to be lubricated automatically with the correct amount of grease and at the right greasing

intervals. This increases the lifetime of the bearings as well as providing a steady and continual lubrication regardless of machine-room conditions.

By leveraging the latest available technology, Schindler high-rise solutions bring smooth and easy maintenance to continually generate the maximum possible uptime for the building.

## **Technician tools**

Schindler also equips its technicians with the tools for success. From 2017 onwards, all Schindler high-rise elevator systems are fitted with pioneering EGI (Extended Graphical Interface) technology, a 12.7 cm multi-language screen which gives all employees clear and easy-to-understand diagnostics on-site after they receive the initial breakdown notification on their phones.

Schindler's innovative field-link technology also encompasses state-of-the-art mapping systems to plan the safest and most efficient route in the morning for the technicians. Further to this, any kind of spare-part management is served through Schindler's streamlined supply chain, which allows technicians to order directly any kind of parts or consult manuals via the smartphone app.

Schindler's eform system also empowers customers towards environmental awareness by offering a paperless service, whereby all maintenance documentation can be stored electronically if requested.





# Innovative Schindler Ahead. Making life easier.

Schindler Ahead is the new digital solution for elevators and escalators, enabling a whole range of new digital products and services. Whether you own, manage or use an elevator or escalator, you will benefit from higher uptime, thorough insights, and greater convenience. Schindler Ahead is the world's first fully digital closed loop maintenance, emergency services, and information system.

## Emergency and Monitoring Services

- 24/7 connection to Schindler's Contact Center with highly trained experts for professional assistance.
- Emergency calls via a reliable digital connection for voice and data.
- Permanent monitoring of equipment health status via Schindler's Global Control Center.

## Ready for future digital products and services

- Protect your investment. Start today and upgrade as you go.
- Industry-first platform with over-the-air (OTA) update capabilities.
- Select and personalize your applications from the Schindler Ahead App Store for Smart Urban Mobility.

## Analytics and expert services

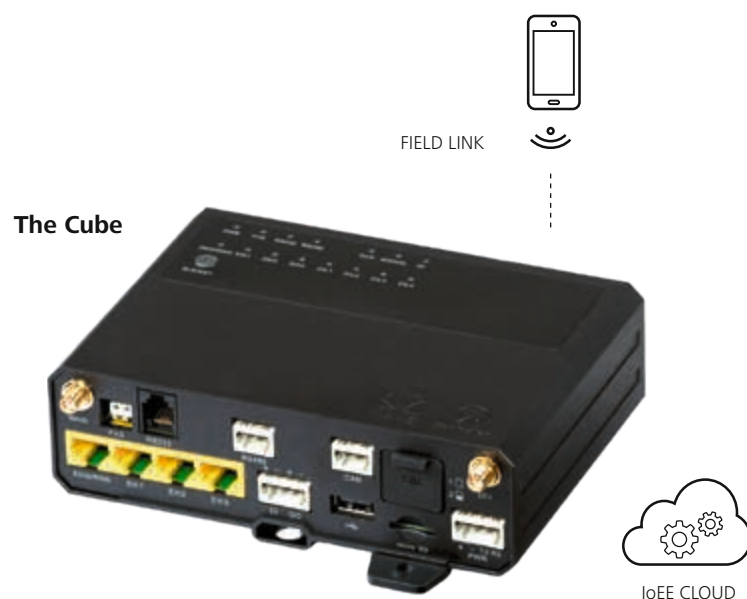
Premier diagnostic and advanced analytics enable Schindler to predictively identify, analyze and resolve possible service issues before they occur.

The closed-loop platform connects equipment, customers and passengers with the Schindler Contact Center and technicians and keeps everyone informed.

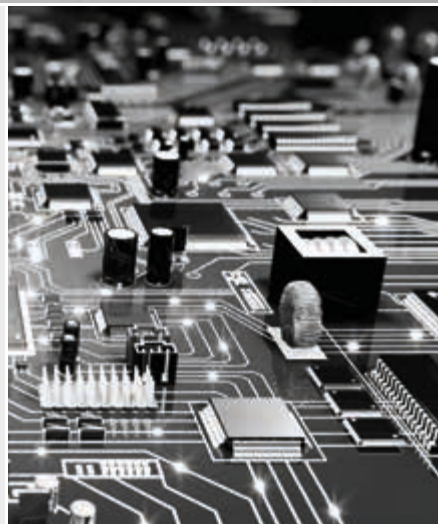
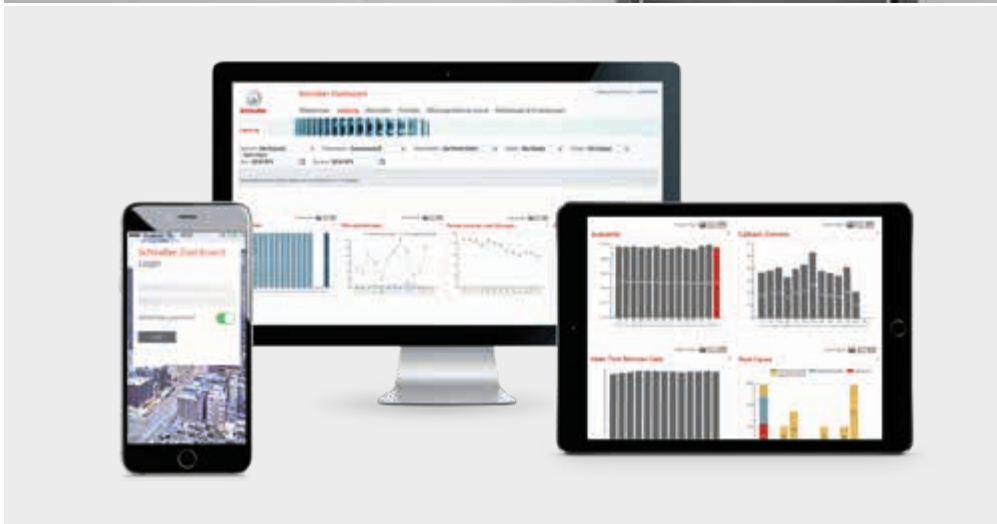
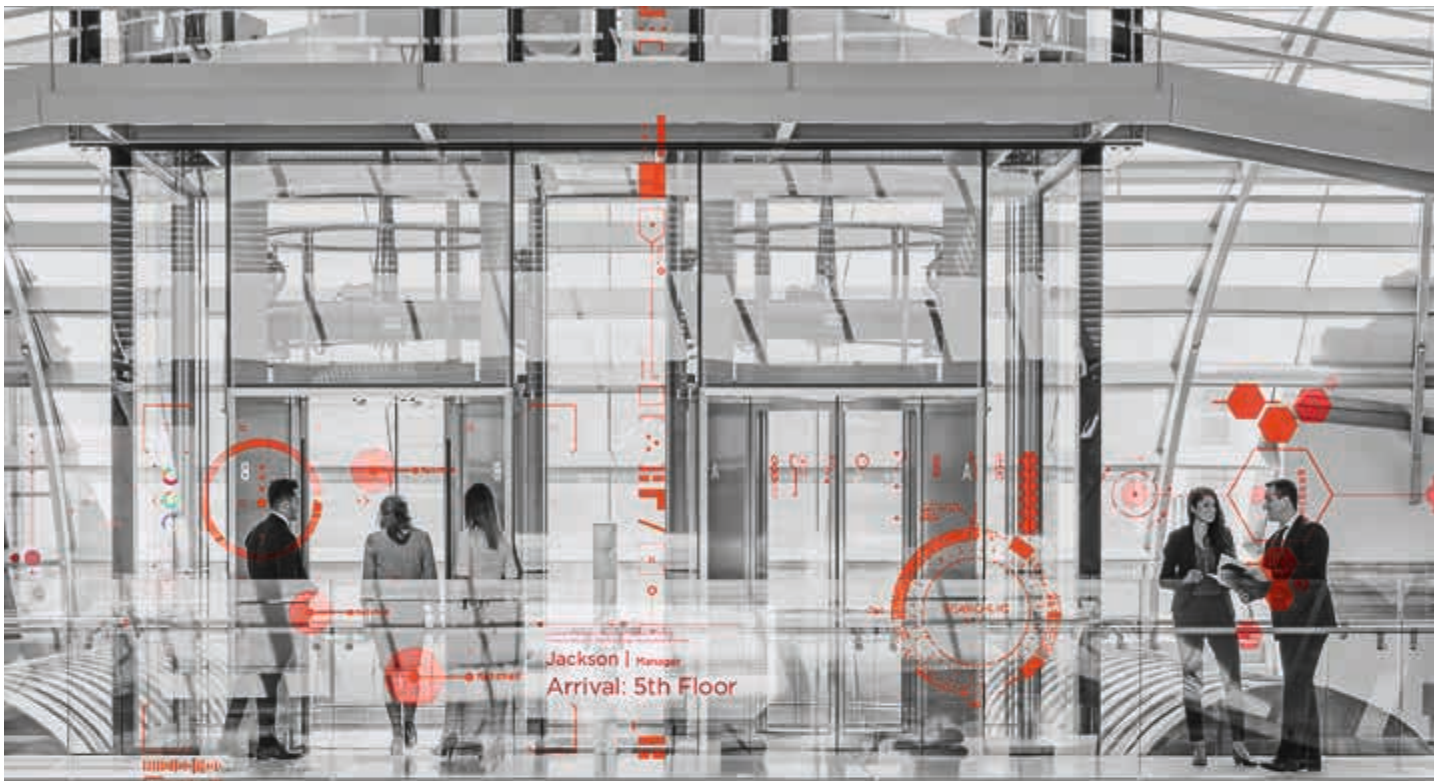
Technicians in the field are notified in real-time and have access to a comprehensive knowledge-based digital expert and assistant on the go.

## The Cube

With the CUBE your equipment becomes smart and connected. Relevant machine data like door movement or lifecycle utilization are collected, pre-analyzed, and transmitted to the Cloud Platform. And more, the CUBE runs apps, streams multimedia content, and even handles emergency voice calls. Always secure.







# Innovative Schindler Ahead. The ActionBoard.

## **Real-time information. All time access.**

Schindler ActionBoard uses an intuitive navigation with pull-down menus which quickly find the specifics that can be of interest for each building-owner. Depending on building owner preferences or locally applicable key performance indicators, Schindler ActionBoard expands or reduces the amount of data desired. A full series of customizable reports are available for download and distribution.

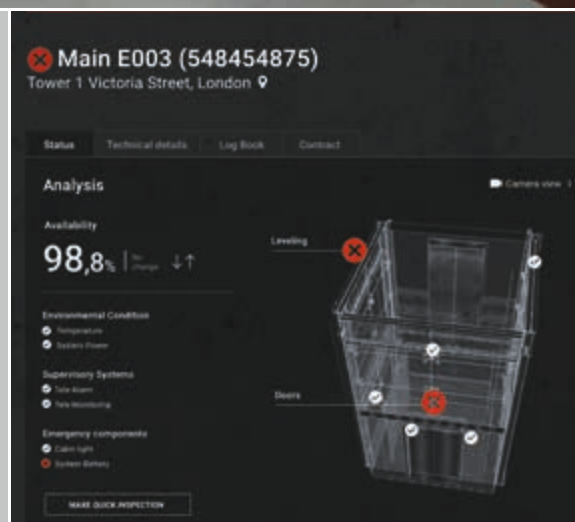
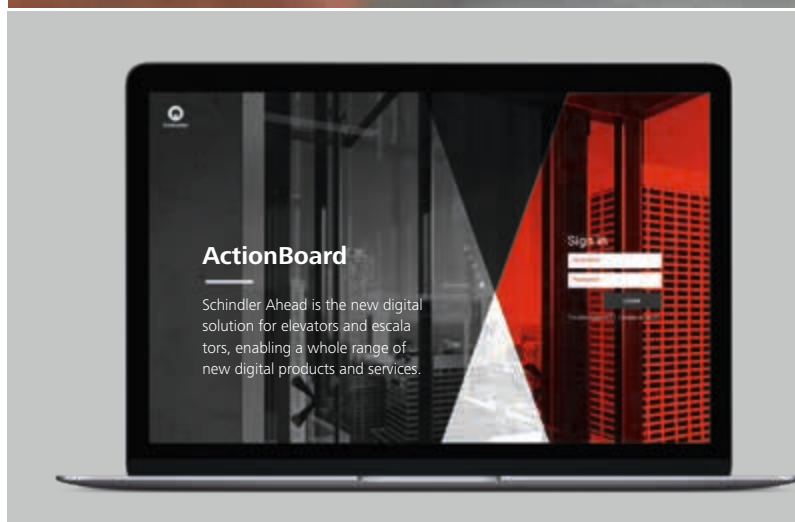
The ActionBoard allows you to view your complete product portfolio, regardless of their geographical location, all on your device. You can monitor in real time how every single one of our products that you have installed is performing. Now you can see if Schindler is fulfilling the agreed service levels of your elevators.

Further to this, the ActionBoard system has been migrated to an easy-to-install app. It can now be accessed anywhere, anytime, on the go, for all different types of customers. Tracking the elevator performance was never easier.

## **Active communication & powerful insights via ActionBoard**

- Real-time insights to better operate and manage your building.
- Customizable reports about equipment status and performance.
- Event-based notifications via app, text messages or emails keep customers, passengers and technicians informed at all times.







# Pioneering the future of building maintenance.

Schindler today is leading what is known as IoEE (Internet of elevator and escalator). Through partnerships with **Apple**, **Huawei**, and **GE**, Schindler has assumed its designated place at the table of global industry leaders.

Cooperation with such partners has ensured that all future Schindler units will be equipped with the ground-breaking technology of leading-edge computing and predictive maintenance.





# Schindler 7000.

## We pulse the skyline.

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