

*Dedicated to People Flow™*



ELEVATOR AND ESCALATOR MONITORING AND COMMAND SYSTEM

**KONE E-Link™**



## A complete view at a glance

KONE E-Link™ enables you to monitor your elevator and escalator systems in one or several buildings from one location. It is a full-featured facilities management tool designed to secure the best possible tenant service quality, reliability and efficiency of the elevators and escalators in your building. KONE E-Link can also be retro-fitted as a stand-alone supervisory tool to enhance the management of virtually any type of installations, new and existing, as well as connected to non-KONE equipment.

### Maximising performance

The system uses the building's standard Local Area Network (LAN), and the connected elevators and escalators can be monitored and managed using easy-to-use graphical software running on a standard PC. KONE E-Link™ traffic displays and reports provide an accurate view of the transportation status, demand, traffic performance, and availability of elevators and escalators in the building. This information helps you ensure that the elevators and escalators deliver the best possible performance at all times. Additionally, KONE E-Link™ has an open interface to Building Management System, to allow easy integration to other facility management systems, if needed.



## Faster reaction and control

KONE E-link offers the following benefits:

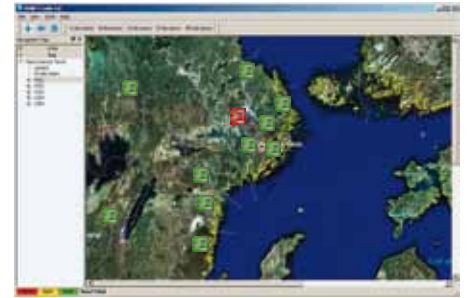
- Real-time view of equipment status locally and remotely
- Large building complexes or geographically (even globally) remote buildings can be monitored and managed from a single location
- Traffic history playback of elevator and escalator events for event history, security and legal purposes
- Faster reaction to malfunctions, possible vandalism and troubleshooting
- Faster rescue of entrapped passengers
- Local and remote control and command of equipment, scheduled commands like mode changes and lockings
- Reduces operating costs
- Easy integration with other facility management systems in the building
- Easy to use and intuitive user interface, short learning curve even for occasional users



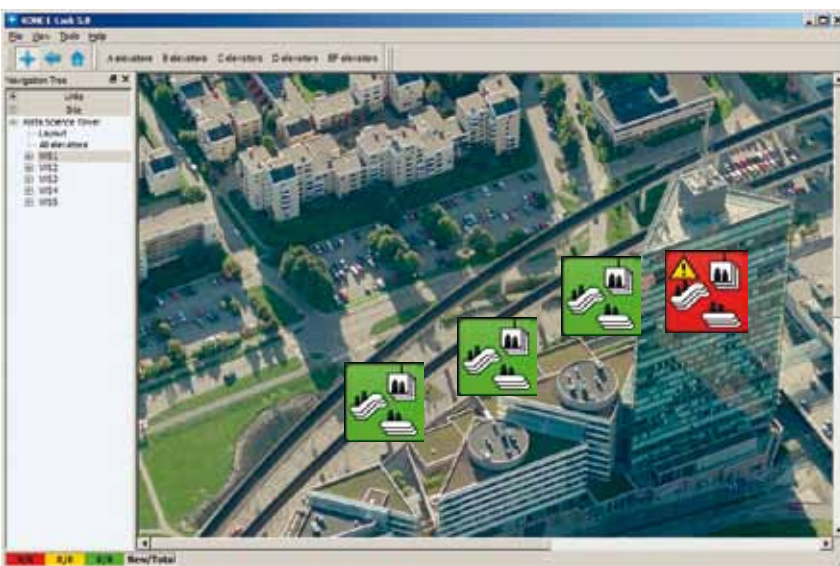
The facility manager has instant review of operational status of all elevators and escalators under his management. Wide variety of reports and statistics are available in real-time.

### Deviation monitoring

Maps, aerial photographs and building lay-out drawings can be used as a reference to locate groups or individual equipments over a large geographical area or building complex. Any deviation from normal operation is logged instantly. An audible and visual alert signal is sent to specified monitors to ensure quick attention. Logged events are stored and compiled in a report. The analysis of this information helps the building owner in liability cases and enables building maintenance personnel to react to minor malfunctions and possible misuse or vandalism.



Aerial view over large geographical area



Close aerial view of the building complex with equipment status indicated



Aerial view of city blocks and buildings

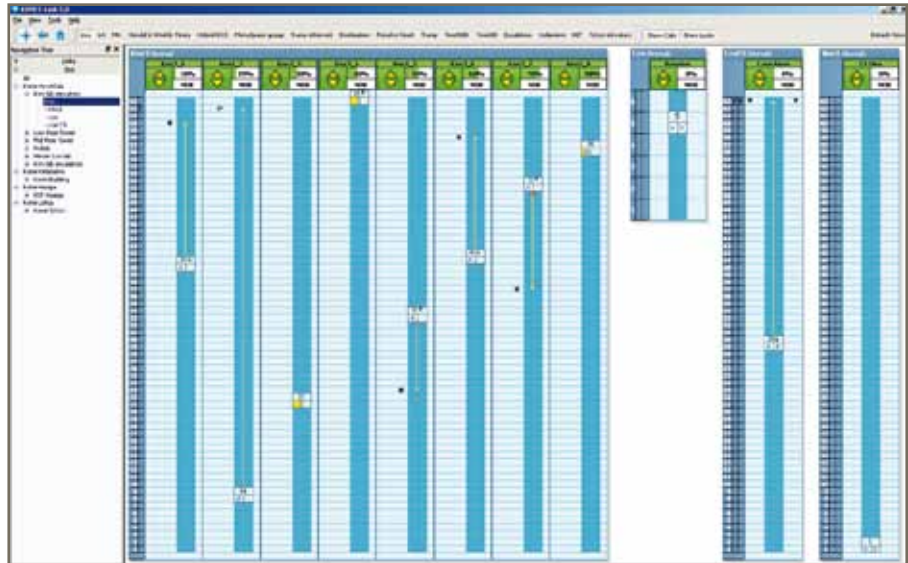


Deviation monitoring summary showing the operational status of each unit



Aerial view using map as background

**Traffic monitoring**  
 Real-time traffic monitoring makes it possible to keep in contact with all elevators and escalators even in a large building. The display can be configured to suit particular needs. Maps and building lay-outs can be used as guides for easy identification of equipment in large building complexes.



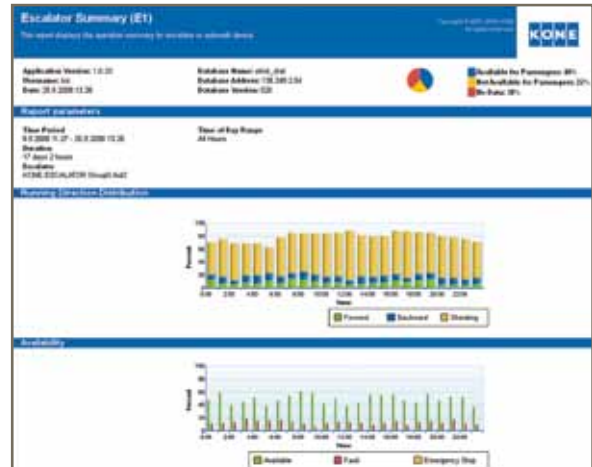
Traffic display

**Traffic history playback**  
 The history playback facility is a unique KONE E-Link™ feature. The need for playback may arise due to suspected misuse, reported incidents, or complaints by tenants. This feature facilitates reruns and study of elevator and escalator operating events and status changes, as if on a video recorder.

**Reports**  
 KONE E-link offers a comprehensive set of reports in graphical, easy to read format to allow thorough analysis of equipment performance, availability and operational quality. All data can be retrieved and analysed using normal office software tools, such as Microsoft Excel.

**Availability reports**  
 The availability report reflects the operational quality of the equipment and the maintenance as a whole. It provides a precise reading of the system's operation, including deviations from the normal operating mode.

**Access control**  
 KONE E-link™ enables calls and commands to be issued by an authorised user to individual elevators or groups of elevators. Access control commands enable locking of each car and hall call buttons either individually or in specified groups. The system carries out the locking automatically in accordance with a user-configurable weekly programme.



Escalator summary graph

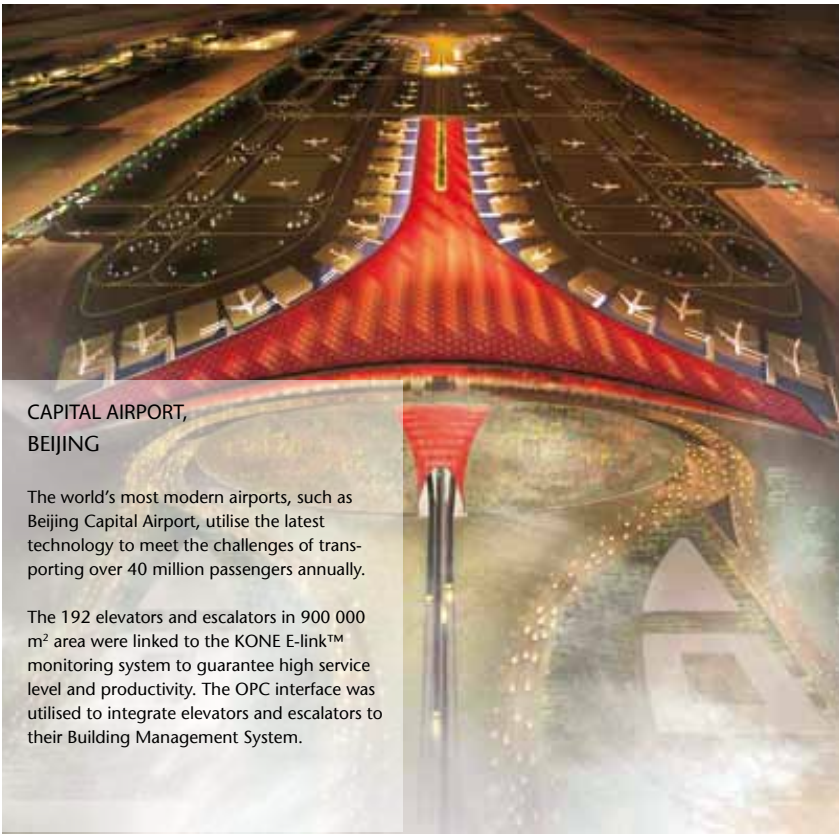


Number of landing calls per time unit



Elevator availability summary graph

# References



CAPITAL AIRPORT,  
BEIJING

The world's most modern airports, such as Beijing Capital Airport, utilise the latest technology to meet the challenges of transporting over 40 million passengers annually.

The 192 elevators and escalators in 900 000 m<sup>2</sup> area were linked to the KONE E-link™ monitoring system to guarantee high service level and productivity. The OPC interface was utilised to integrate elevators and escalators to their Building Management System.



ENCH CITE INTERNATIONAL,  
NANJING

KONE E-link™ is also ideally suited for managing the portfolio of residential buildings in customer's property. Via VPN Internet access the facility manager can login to KONE E-link™ from anywhere and enable the remote monitoring of valuable system information in big residential complexes.



ST. OLAV'S HOSPITAL,  
TRONDHEIM

All logistics are handled by Automatically Guided Vehicles, which use the passenger elevators via a WLAN connection to KONE E-Link™ OPC interface. This transportation solution from KONE is a crucial part in making the complex hospital logistics run.



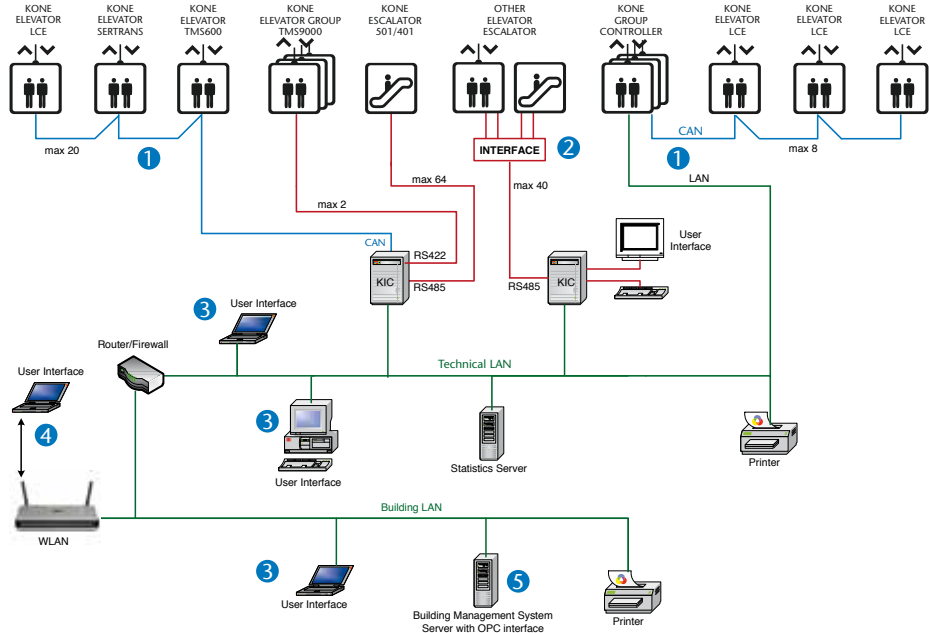
OFFICE APPLICATION,  
LONDON

KONE E-Link™ is used to monitor the performance and traffic of the 32 elevators and 8 escalators in the 201 Bishopsgate and Broadgate Tower complex in London – including the first double-deck elevators with destination control.

The customer has a keen interest to track the performance and service level of this unique, state-of-the-art elevator configuration.

## Typical connections and access to KONE E-Link

- 1 KONE Equipment
- 2 Other manufacturer's equipment
- 3 Any authorised computer in building LAN
- 4 LAN network through WLAN wireless connection
- 5 Connection to building automation system through OPC server



CAN (provided by KONE)

Building LAN 100 MB/s TCP/IP

RS (provided by KONE)

### E-Link functions and features

- Traffic monitoring
- Deviation alarms
- Elevator and escalator operation reporting
- Operational event history
- Traffic history playback
- Elevator calls and commands
- Elevator access control
- Remote monitoring
- Scheduled calls and commands

### Interface to Building Management System

- OPC Data Access 2.05A

### Maximum system size

- Total number of elevators: unlimited
- Total number of escalators: unlimited
- Total number of user interface computers: unlimited
- Maximum number of KICs: unlimited
- Maximum distance between KIC and elevator: 500 m (RS bus) or 1000 m (KONE CAN bus)
- Maximum distance between KIC and escalator: 500 m

### Monitoring

- User configurable real time traffic displays
- Status displays
- Building layouts

### Reports

- Calls per hour
- Calls per floor
- Waiting times per hour
- Waiting times per floor
- Elevator availability
- Elevator operation summary
- Escalator operation summary
- Number of alarms, alarm log

### Elevator statistics

- Number of hall calls
- Hall call time
- Number of starts
- Start load
- Stop time
- Run time
- Cycle time
- Re-levelings
- Number of starts in bank
- Availability
- Operational Time

### Double-decker elevator statistics

- Lower deck load
- Upper deck load
- Both decks serving time

### DSC elevator statistics

- Number of passenger calls
- Waiting time
- Time to destination
- Transit time

### Escalator statistics

- Availability
- Run time
- Number of starts
- Number of emergency stops
- Number of disturbances

### Playback

- Display of traffic history
- Linked with operational event history

### Elevator calls and commands

- Car calls
- Priority landing calls
- Attendant service
- Independent service
- Simplex service
- Out of service
- Special parking
- Scheduling possibility
- Escalator remote control

### Elevator access control commands

- Scheduled locking
- Manual locking

### NOTE!

Elevator calls, commands, and access control commands are only available if the corresponding options are ordered with the elevator control system.

### Operational event history

- Alarms
- Deviations
- Status changes

### System configuration

- Languages: call for availability

### NB-

Not all the corresponding features of E-Link can be obtained when used in conjunction with non-KONE equipment - please check with your KONE representative



KONE provides innovative and eco-efficient solutions for elevators, escalators, doors, loading bays and access. We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernisation. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life-cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE UniDrive™, KONE MonoSpace®, KONE MaxiSpace™, and KONE InnoTrack™. You can experience these innovations in architectural landmarks such as 30 St Mary Axe and Broadgate and 201 Bishopsgate buildings, BAA Terminal 5, Emirates Stadium, Brunel University, Citigroup, Jubilee Line and St. Georges Wharf.

KONE employs approximately 35,000 dedicated experts to serve you globally and locally in 50 countries.

**KONE plc**

**Head Office**

KONE plc, Global House, Station Place,  
Chertsey, Surrey KT16 9HW  
sales.marketinguk@kone.com

**Regional Offices**

KONE plc, Unit 6, Elmwood, Chineham  
Business Park, Basingstoke,  
Hampshire RG24 8WG

KONE plc, Suite G7/G4, Duart House,  
Finch Way, Strathclyde Business Park,  
Bellshill ML4 3PR

KONE plc, Worth Bridge Road, Keighley, West  
Yorkshire BD21 4YA

KONE plc, 34 Bedford Road,  
Clapham, London SW4 7HJ

KONE plc, 1000 Birchwood Boulevard,  
Birchwood, Warrington,  
Cheshire WA3 7QL

**General Enquiries**

Tel: 0845 1 999 999  
[www.kone.co.uk](http://www.kone.co.uk)



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