KONE
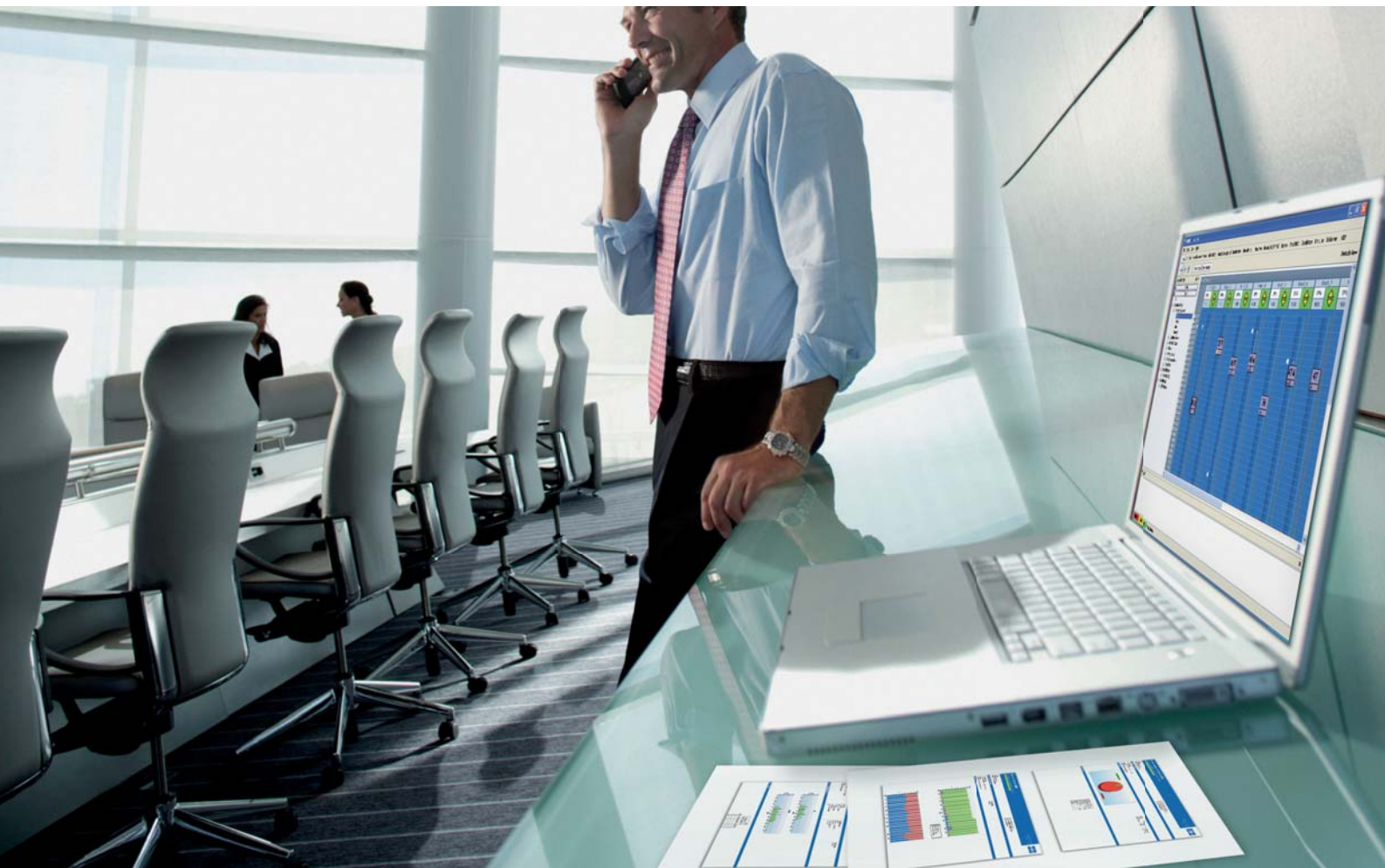
ELEVATOR AND ESCALATOR MONITORING AND COMMAND SYSTEM

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.

Maximizing 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.
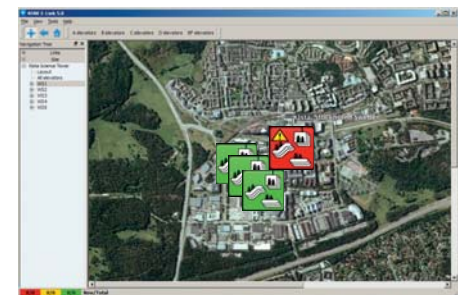
Deviation monitoring

Maps, aerial photographs and building lay-out drawings can be used as a reference to locate groups or individual equipments over 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.
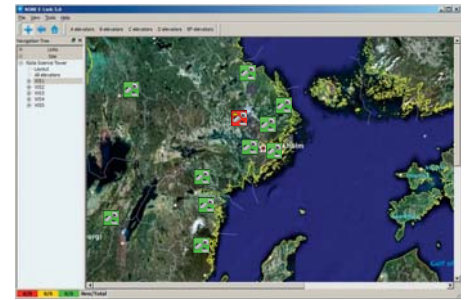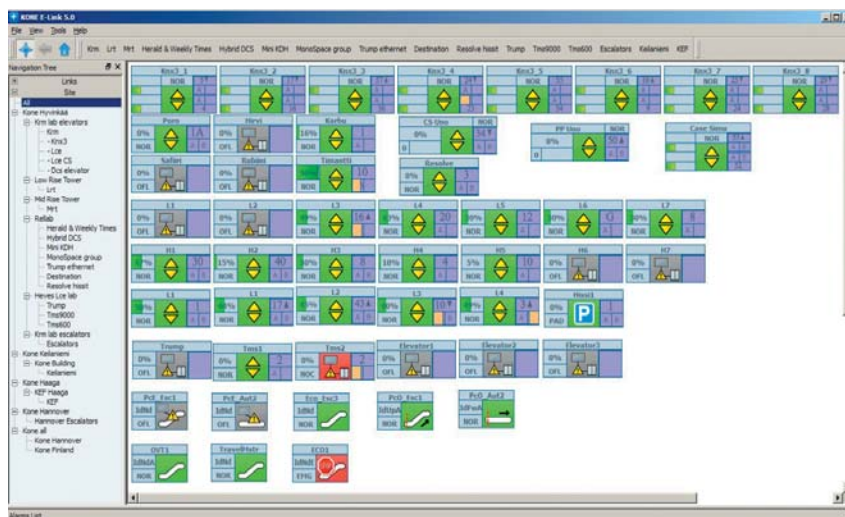

Aerial view over large geographical area
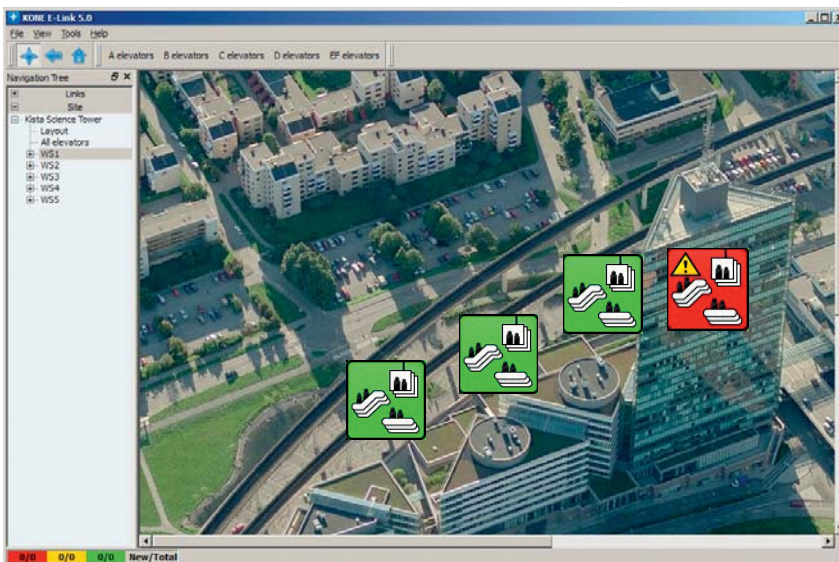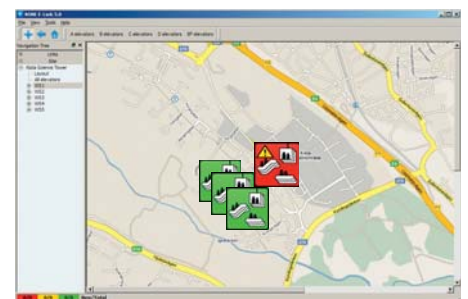

Close aerial view of the building complex with equipment status indigated



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.
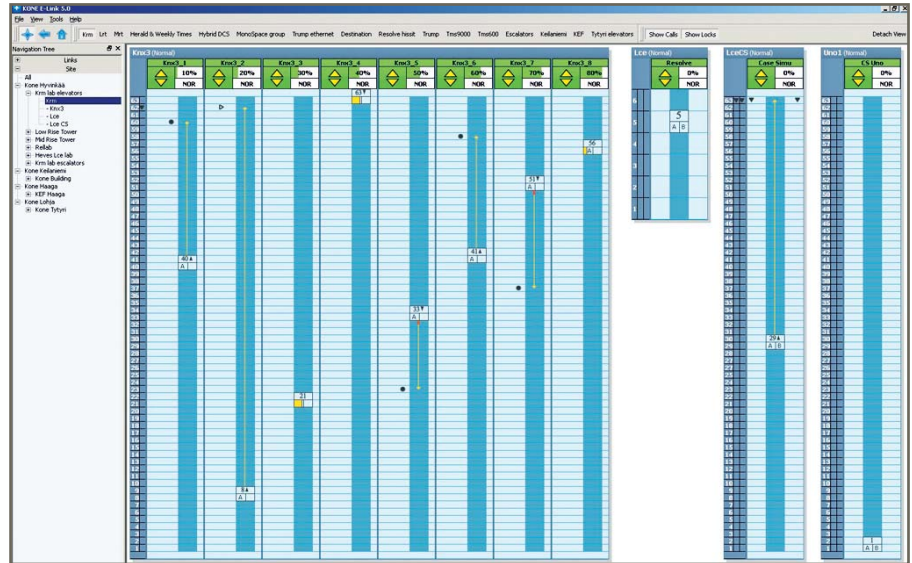
Traffic display

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 statuschanges, 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 analyzed using normal office software tools, such as Microsoft Excel.
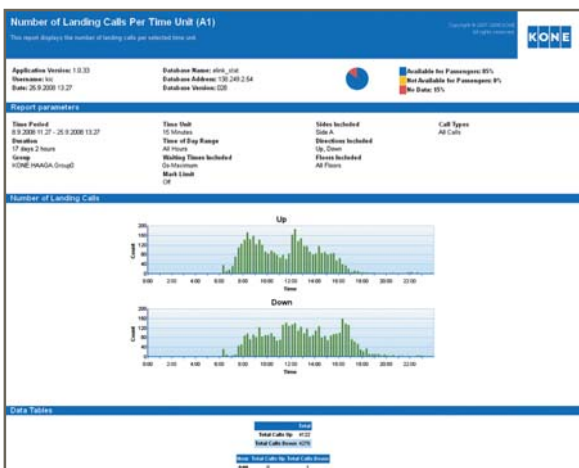
Availability reports

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 authorized 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 program.
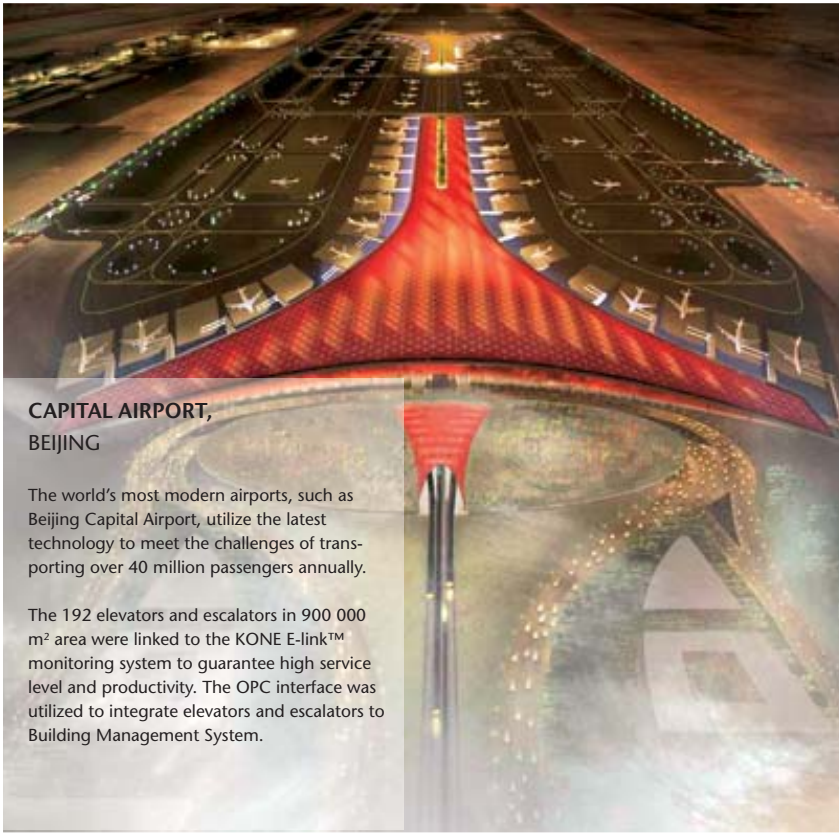

Escalator summary graph

Number of landing calls per time unit
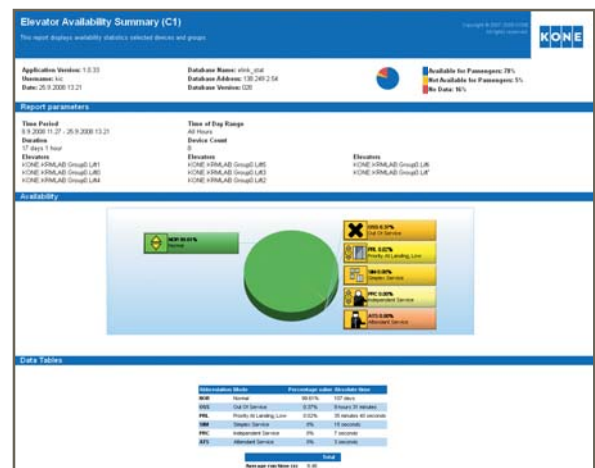


Elevator availability summary graph

References

CAPITAL AIRPORT,
BEIJING

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

The 192 elevators and escalators in 900 000 m² area were linked to the KONE E-link™ monitoring system to guarantee high service level and productivity. The OPC interface was utilized to integrate elevators and escalators to Building Management System.
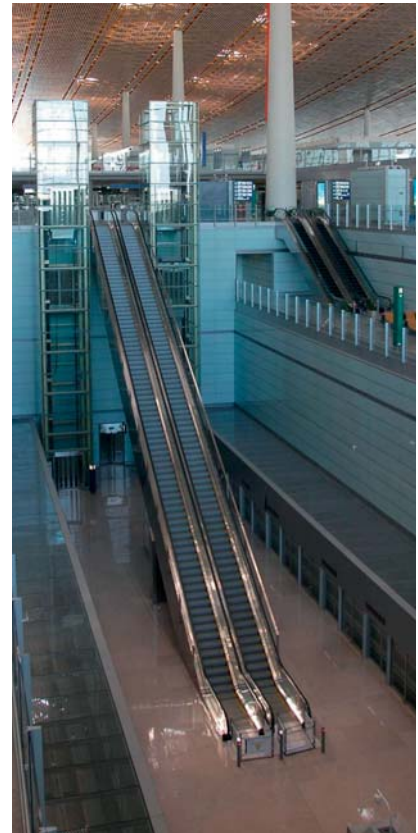
ENCH CITE INTERNATIONAL,
NANJING

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.
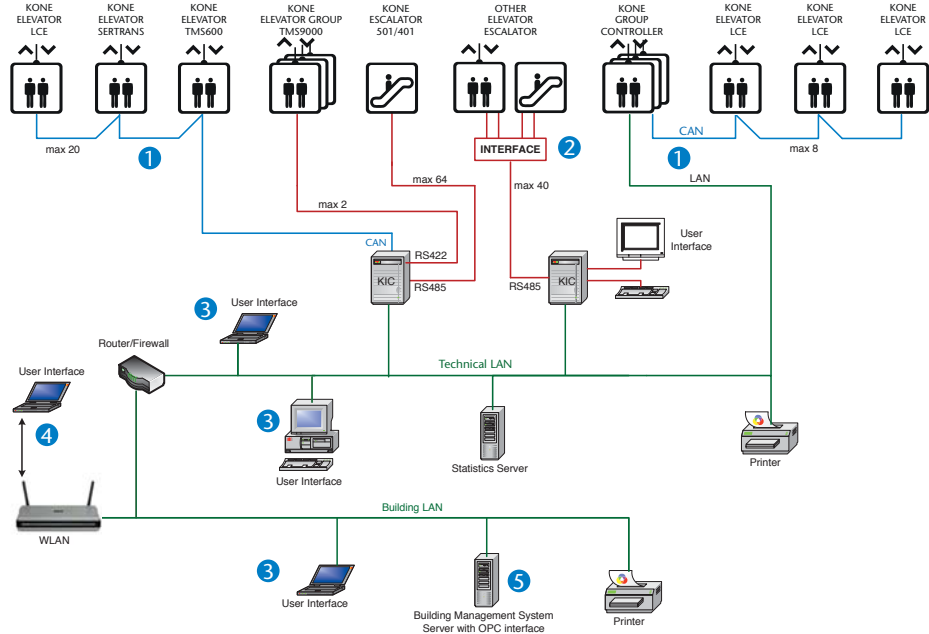

OFFICE APPLICATION,
LONDON

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 authorized computer in building LAN
4 LAN network through WLAN wireless connection
5 Connection to building automation system through OPC server

KONE ELEVATOR LCE
KONE ELEVATOR SERTRANS
KONE ELEVATOR TMS600
KONE ELEVATOR GROUP TMS9000
KONE ESCALATOR 501/401
OTHER ELEVATOR ESCALATOR
KONE GROUP CONTROLLER
KONE ELEVATOR LCE
KONE ELEVATOR LCE
KONE ELEVATOR LCE

max 20
1
INTERFACE
2
CAN
1
max 8

max 2
max 64
max 40
LAN

CAN
RS422
RS485
RS485
KIC
KIC
User Interface

User Interface
3
Router/Firewall

User Interface
4

Technical LAN

3
User Interface
Statistics Server
Printer

WLAN

Building LAN
3
User Interface
5
Building Management System Server with OPC interface
Printer

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 computoers: 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

NOTE!
Not all the corresponding features of E-Link can be obtain when used in conjunction with non-KONE equipment - please check with local KONE representative

KONE

KONE provides innovative and eco-efficient solutions for elevators, escalators and automatic building doors. We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernization. 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 MonoSpace® KONE MaxiSpace™, and KONE InnoTrack™. You can experience these innovations in architectural landmarks such as the Trump Tower in Chicago, the 30 St Mary Axe building in London, the Schiphol Airport in Amsterdam and the Beijing National Grand Theatre in China.

KONE employs over 30,000 dedicated experts to serve you globally and locally in 49 countries.

KONE Corporation
www.kone.com