E-SERVICE

E-service is a set of outputs from electronic applications which makes it possible for the head of lift maintenance or a responsible maintenance technician to access information about the quality of the lift operation, the maintenance inspection history or any unauthorized tampering with the lift systems. Thanks to e-service, the lift owner can easily access inspection logs and operating data.

- Client is PC application
- Server is server application with databases about lifts
- access to the user environment via login (user name, password)
- helps divide the lifts between individual technicians according to their free capacity
- plans lift inspections
- makes it possible to maintain inspection records and lift maintenance reports
- makes it possible to store lift documentation (lift logbook, wiring documentation, layout drawings) and contact information of the person responsible for the lift
- time filtering of data – weeks, months, etc.
- filters lift data – all lifts, specific lift, lift with frequent defects, etc.
- lift data may be viewed on a smart phone or tablet
- customer access to lift information via internet or e-mail

LIFT ONLINE MONITOR

This is a PC application. The Lift Online Monitor client displays the current operational status of the lift – whether the lift is stationary, going up/down, has open/closed door, or has an error status. Several clients can be connected locally or remotely. The server receives events from the Kk-Webrman server, which receives events from the LCS. If dispatching for the given LCS is authorized, the selected events are forwarded to the Lift Dispatcher server.

KK-WEBRMAN

- collects information from connected lifts
- access to the user environment via login (user name, password)
- optional e-mail dispatch if a lift event occurs (information, warning, error messages, defects)
- head of maintenance has an overview of lift defects on his mobile phone before the defect is reported by a customer
- optional reporting of collected data
- overview of lifts with repeated problems – suitable when dealing with maintenance technicians who may, during routine inspections, preventively check potential defect causes
- event overview for specific lifts – an easier and more operational search for dynamic defects, checks of maintenance events
- overview of defect frequency during the last 3 months – the maintenance technician has an overview of which of the assigned lifts has had a defect since its last expert inspection
- overview of rescues within a given period of time
- overview of movement to each floor, or the use of specific users (VIP lifts)
- overview of the use of the lift during specific hours

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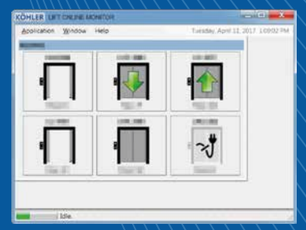


KÖHLER
Elevator & Escalator

LIFT MONITORING SYSTEM

SYSTEM REQUIREMENTS

BC LIFT DISPATCHER:

- Windows Server 2012+
- .NET Framework 4.5+

E-SERVICE + SEVY:

- Windows Server 2012+
- .NET Framework 4.5+
- MySQL
- IIS
- 6 GB RAM, 40 GB HDD
- 2x CPU

KK-WEBRMAN:

- Linux / Windows X Windows Server 2012+
- Python 2.7

MAIN FEATURES

- Plug&Play: automatic exchange of configuration data
- Monitoring of up to 1000 single lifts or groups
- Monitoring of third-party controllers

NETWORKING

Data exchange across multiple installations using GSM or Ethernet mediums

VIZUALIZING

Real-time monitoring of all networked installations

ANALYZING

Intelligent diagnostics with recording and long-term statistics functions

WWW.KOHLERELEVATOR.COM

LCS

A next-generation Lift Control System designed for both traction and hydraulic lifts. This system offers state-of-the-art technology along with an emphasis on maximum operational reliability. The LCS supports three different transmission standards:

- CAN bus for networking in groups
- Ethernet for machine rooms with existing network connection
- RS232 for networking over GSM module

COMPONENTS

LCS = BC-NELA / GSM MODULE = KK-CEMOL / MODULE BC = MODULE BC XY

GSM MODULE

The GSM module (KK-CEMOL) is a gate of voice and mobile network connection for LCS.

MODULE BC

The BC is a universal interface module to connect third-party controllers to the service.

BMS

Building management system is our solution, or you can use some other standards. For successful connection to other BMS standards, BC MODULE is used.

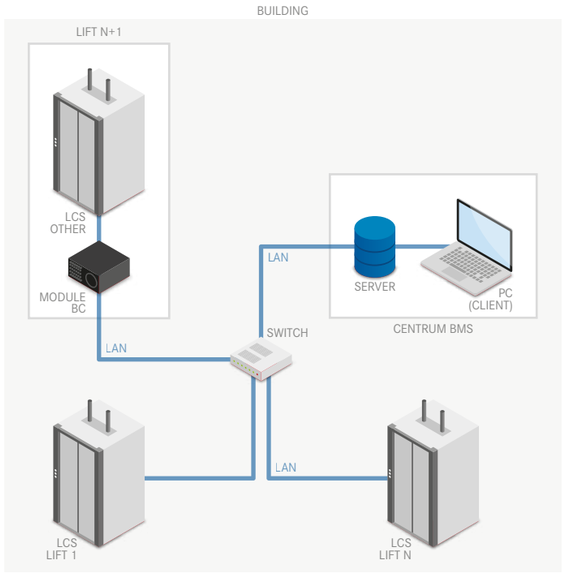
1. LIFT MONITORING IN THE BMS-BC BUILDING (LOCAL) WITH DATA ON THE BMS SERVER

a)
LAN: Ethernet

b)
Centrum BMS: server with software (local)
- Kk-Webrman
- E-Service (optional)
- Lift Online Monitor (optional)

c)
Lifts
- LCS: Lift with control system BC-NELA
- LCS OTHER: Lift with other control system connected through the BC MODULE

d)
PC1 as client for connect to the server



2. LIFT MONITORING IN THE BMS-BC BUILDING (REMOTE) ON THE BETA CONTROL DATA SERVER

a)
LAN: Ethernet

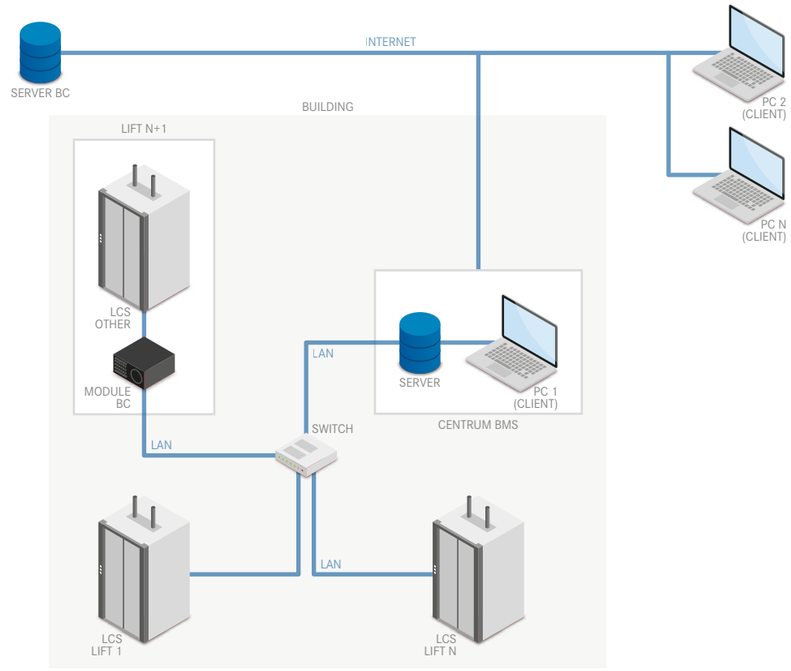
b)
Centrum BMS: server with client software for monitoring
- Kk-Webrman www access
- E-Service client application or www access
- Lift Online Monitor client application

c)
Lifts
- LCS: Lift with control system BC-NELA
- LCS OTHER: Lift with other control system connect over BC MODULE

d)
PC1..PCn use as clients with client software for monitoring.

e)
Internet

f)
Server BC (remote)
- Kk-Webrman
- E-Service (optional)
- Lift Online Monitor (optional)



3. LIFT MONITORING IN BMS-OTHER

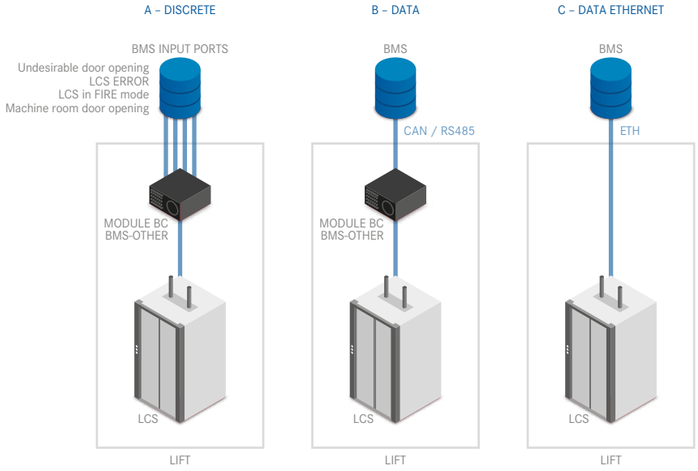
a)
LCS (BC-NELA)

b)
BC MODULE

Variant A
Convert parallel discrete outputs to connect LCS to the BMS

Variant B
Convert between protocols
LCS <–> (CAN, RS-485) <–> BMS

Variant C
Direct connection from LCS to BMS throw Ethernet. The BMS protocol can be implement to the LCS like Modbus TCP/IP, Modbus UDP/IP, etc.



4. LIFT MONITORING OVER INTERNET

a)
Internet or GSM MODULE

b)
Lifts
- LCS: Lift with control system BC-NELA
- LCS OTHER: Lift with other control system connect over BC MODULE

c)
PC1..PCn use as client with client software for monitoring

d)
Server BC (remote)
- Kk-Webrman
- E-Service (optional)
- Lift Online Monitor (optional)