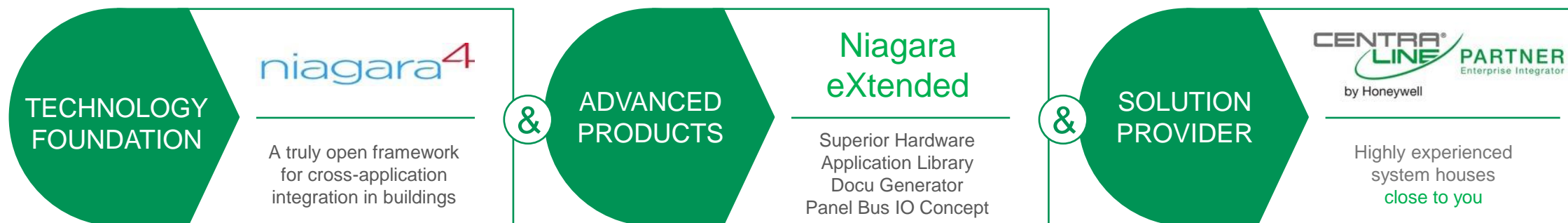# INTEGRERET MODBUS- OG DALI-BASERET RUMSTYRING
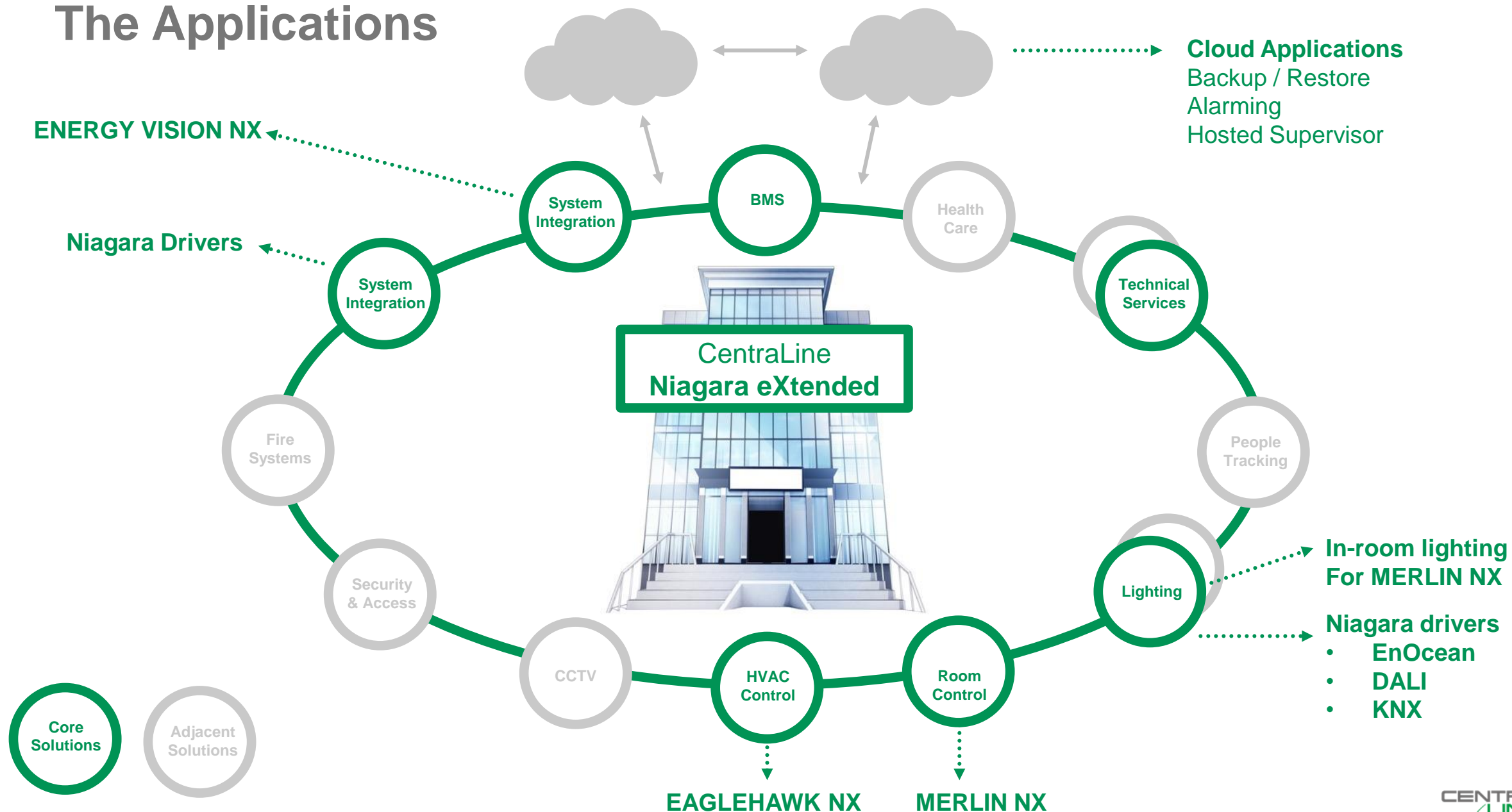
Georg Markhovski **|** 04.04.2022

The Brand

by Honeywell

- Founded in 2004 in Schönaich/Germany by Honeywell
- Quickly growing partner network to 600+ CentraLine Partners across EMEA
- Applying leading Niagara technology for Integrated Building Management
- Seemlessly integrating Honeywell and non-Honeywell building systems (HVAC and non-HVAC)

Honeywell | Partner Channel
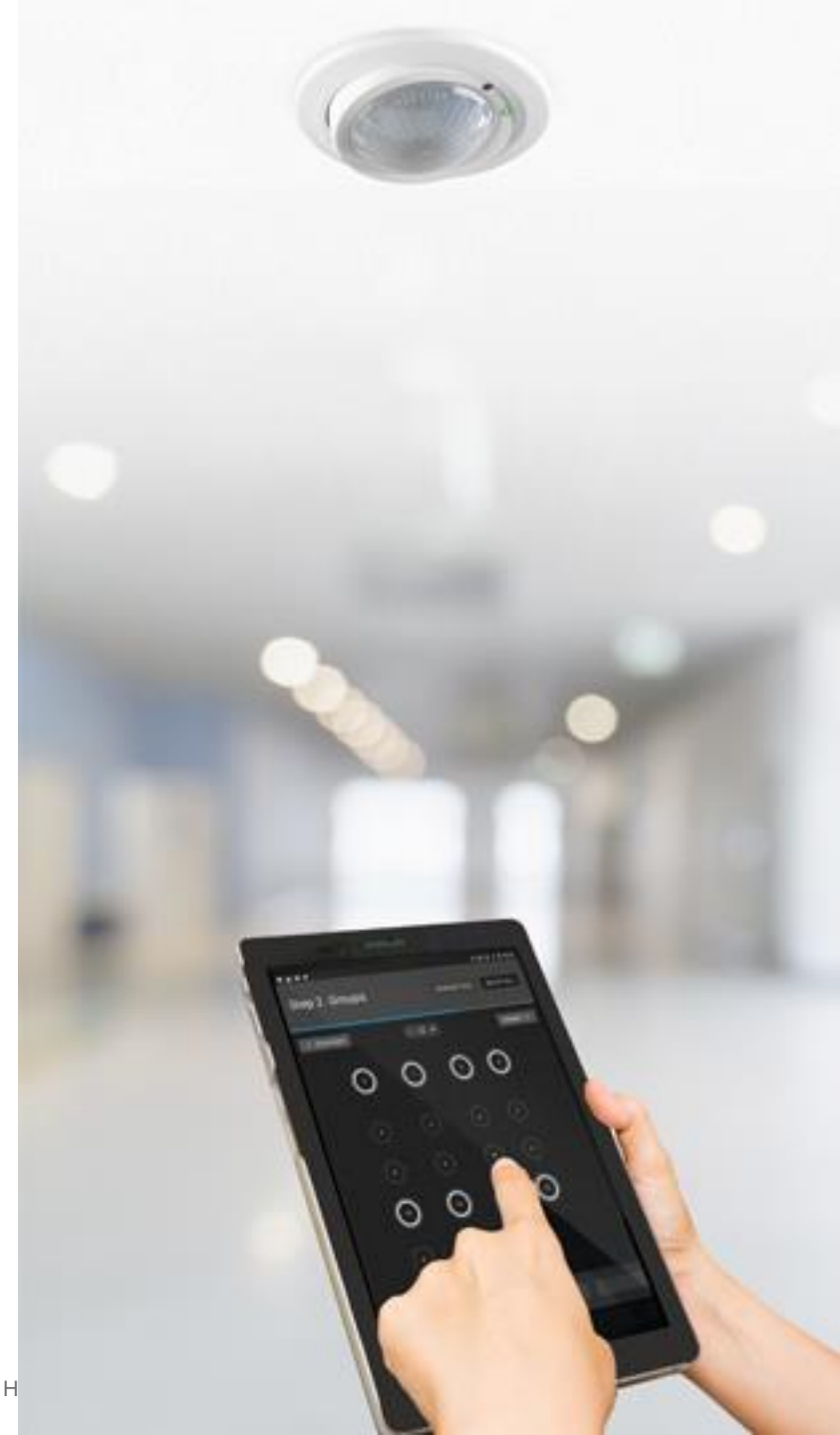
TECHNOLOGY FOUNDATION

niagara⁴

A truly open framework for cross-application integration in buildings

&

ADVANCED PRODUCTS

Niagara eXtended

Superior Hardware
Application Library
Docu Generator
Panel Bus IO Concept

&

SOLUTION PROVIDER

PARTNER
Enterprise Integrator
by Honeywell

Highly experienced system houses
close to you

An ideal solution: Strong local know-how & Global high-tech

The Applications

Cloud Applications
Backup / Restore
Alarming
Hosted Supervisor

ENERGY VISION NX

Niagara Drivers

System Integration

BMS

Health Care

System Integration

Technical Services

CentraLine
Niagara eXtended

Fire Systems

People Tracking

Security & Access

Lighting

In-room lighting For MERLIN NX

CCTV

HVAC Control

Room Control

Niagara drivers
- **EnOcean**
- **DALI**
- **KNX**

Core Solutions

Adjacent Solutions

EAGLEHAWK NX

MERLIN NX

CENTRA LINE
by Honeywell

ROOM SOLUTION

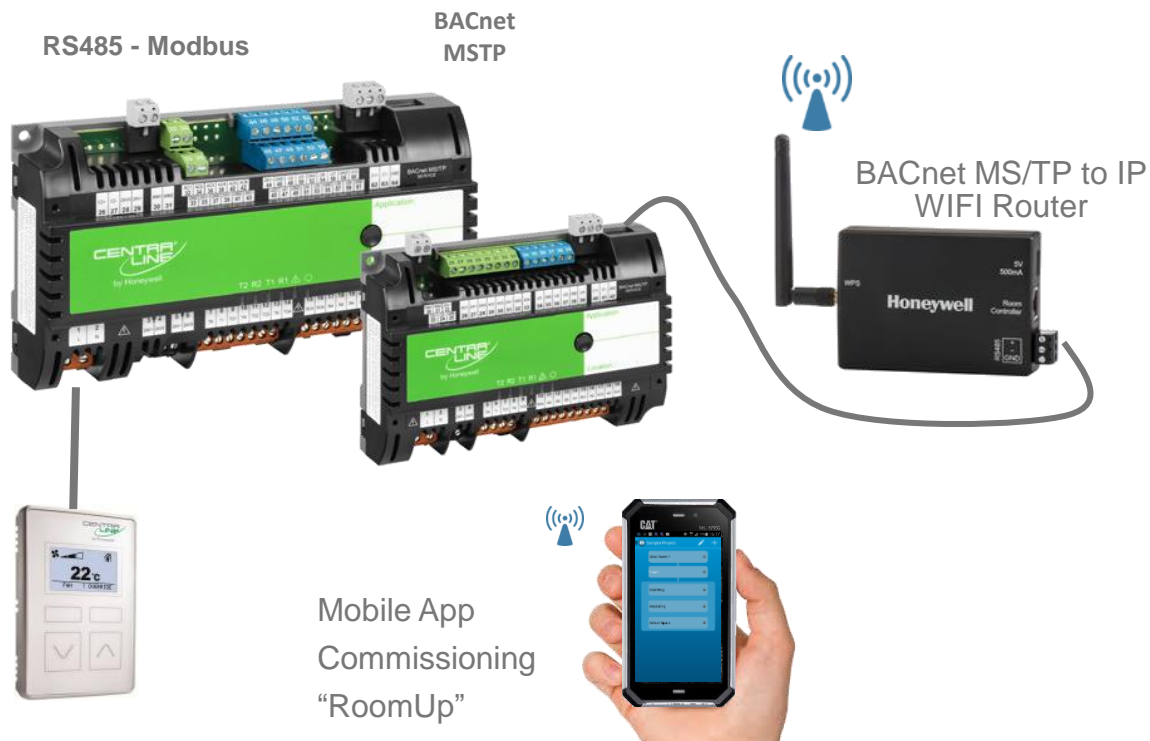## Integration of DALI64 with MERLIN NX system enables integrated room automation and SMART building solutions
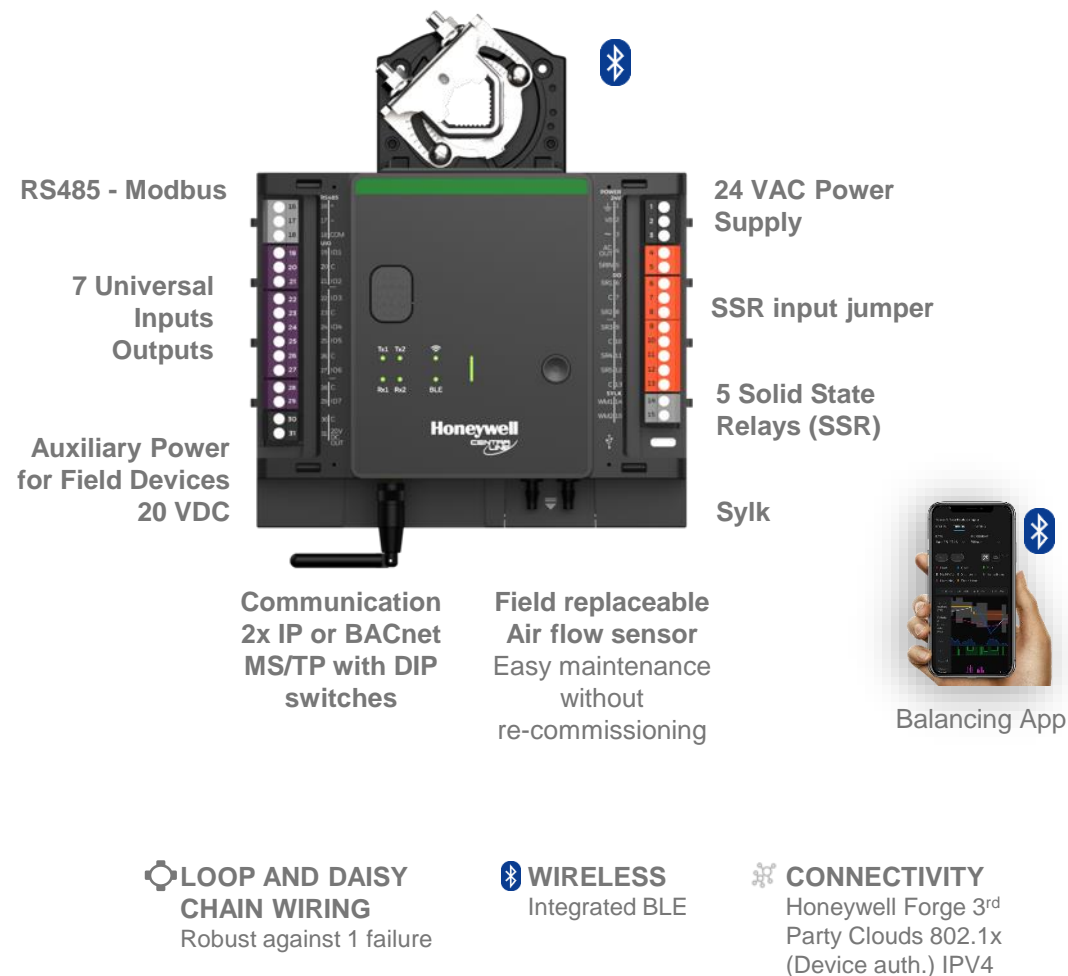

Balancing App

MERLIN room controller – Commissioning Savings

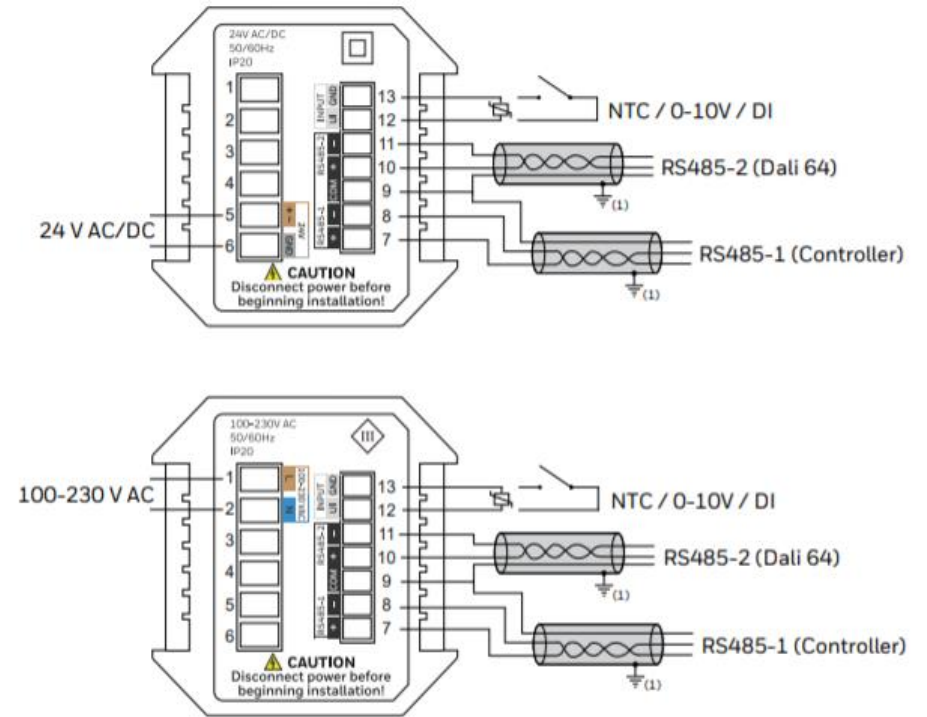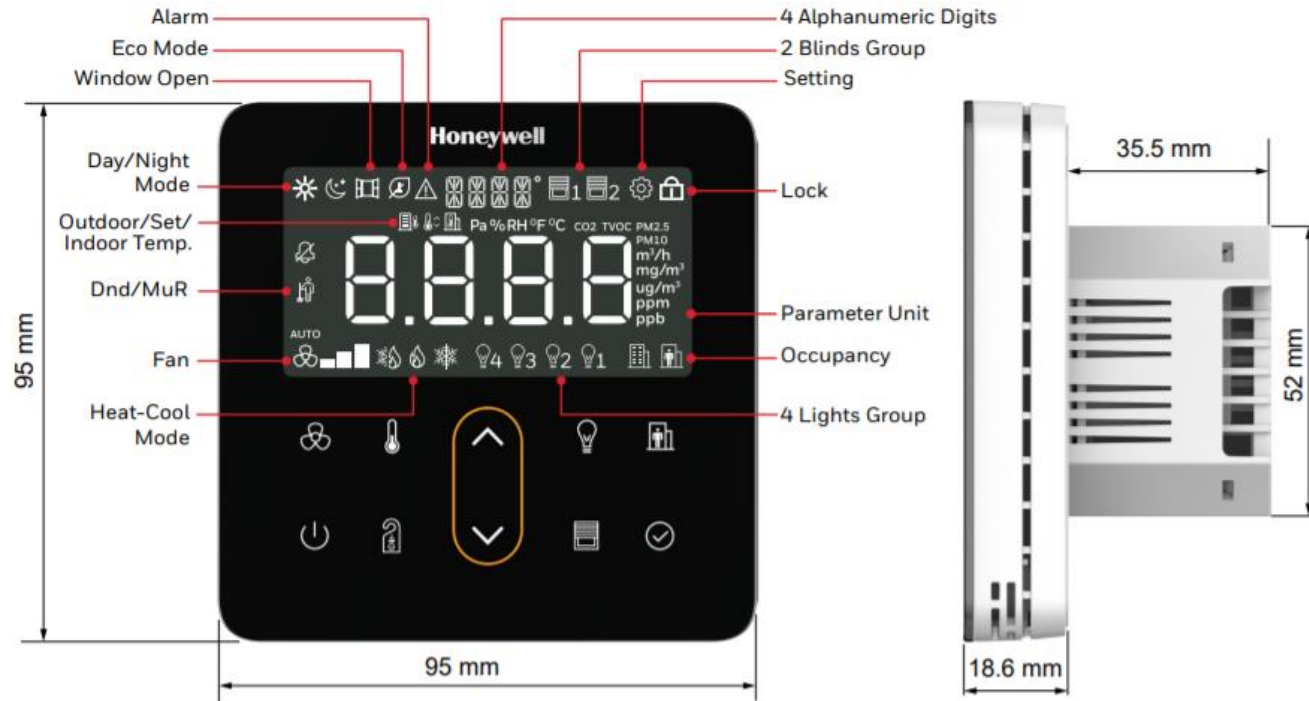## MERLIN offers Single-Person-Commissioning

- Commissioning can be done by one person instead of two
- Guided test procedure & report
- Automatic MSTP MAC addressing

RS485 - Modbus

BACnet MSTP

BACnet MS/TP to IP WIFI Router

Mobile App Commissioning "RoomUp"

MERLIN NX IP VAV with Integrated Actuator

RS485 - Modbus

7 Universal Inputs Outputs

Auxiliary Power for Field Devices 20 VDC

24 VAC Power Supply

SSR input jumper

5 Solid State Relays (SSR)

Sylk

Communication 2x IP or BACnet MS/TP with DIP switches

Field replaceable Air flow sensor
Easy maintenance without re-commissioning

Balancing App

⬡ **LOOP AND DAISY CHAIN WIRING**
Robust against 1 failure

WIRELESS
Integrated BLE

CONNECTIVITY
Honeywell Forge 3rd Party Clouds 802.1x (Device auth.) IPV4

CENTRA LINE
by Honeywell

TR80 - MODBUS WALL MODULE

Alarm
Eco Mode
Window Open
4 Alphanumeric Digits
2 Blinds Group
Setting

Day/Night Mode
Outdoor/Set/Indoor Temp.
Dnd/MuR
Fan
Heat-Cool Mode

Lock
Parameter Unit
Occupancy
4 Lights Group

95 mm
95 mm
35.5 mm
52 mm
18.6 mm

24V AC/DC 50/60Hz IP20
24 V AC/DC
NTC / 0-10V / DI
RS485-2 (Dali 64)
RS485-1 (Controller)
CAUTION Disconnect power before beginning installation!

100>230V AC 50/60Hz IP20
100-230 V AC
NTC / 0-10V / DI
RS485-2 (Dali 64)
RS485-1 (Controller)
CAUTION Disconnect power before beginning installation!

- On Board Temperature & Humidity Sensor
- Lighting Control upto 4 Groups
- Blind Control upto 2 Groups
- Do Not Disturb & Make My Room keys for Hotel Industry
- IAQ Parameters (Display Only): T, H, C02, TVOC, PM
- Additional Parameters (Display Only): Air flow(m3/hr) and Pressure (Pa)
- Two custom Parameter (4 Character, 4 digits)
- Dual Modbus RTU RS485 communication (Modbus Master for DALI64)
- One Configurable input for external Sensor: NTC /Analog Input/ Digital Input
- CE, RoHS and UKCA
- Available in 24V and 230V versions for easy of power wiring

CENTRA LINE
by Honeywell
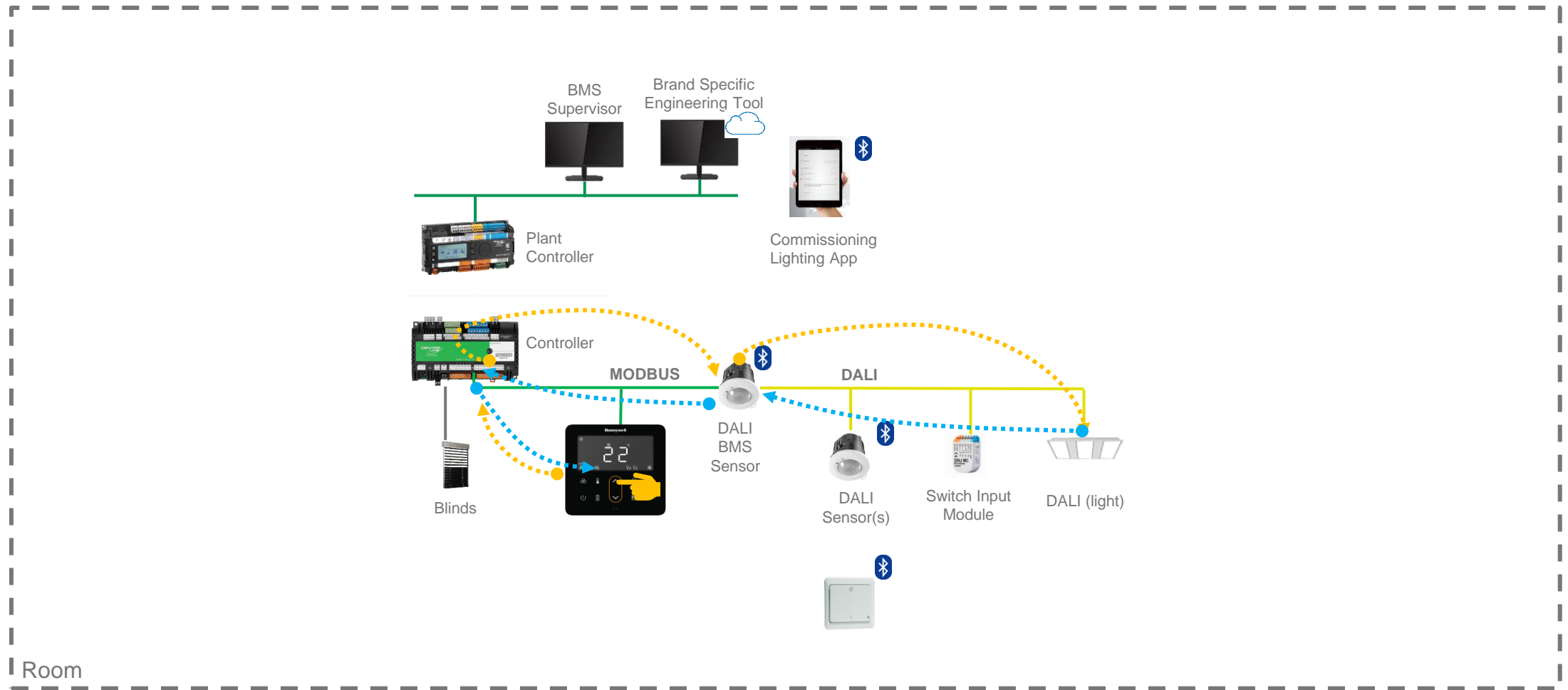
ET SAMLET SYSTEM

Fordele:

- Reduceret hardware omkostning
- Nem og sikker commissioning vha. apps
- Data udveksling: DALI-Modbus
- Visualisering
- DALI 2 open protocol
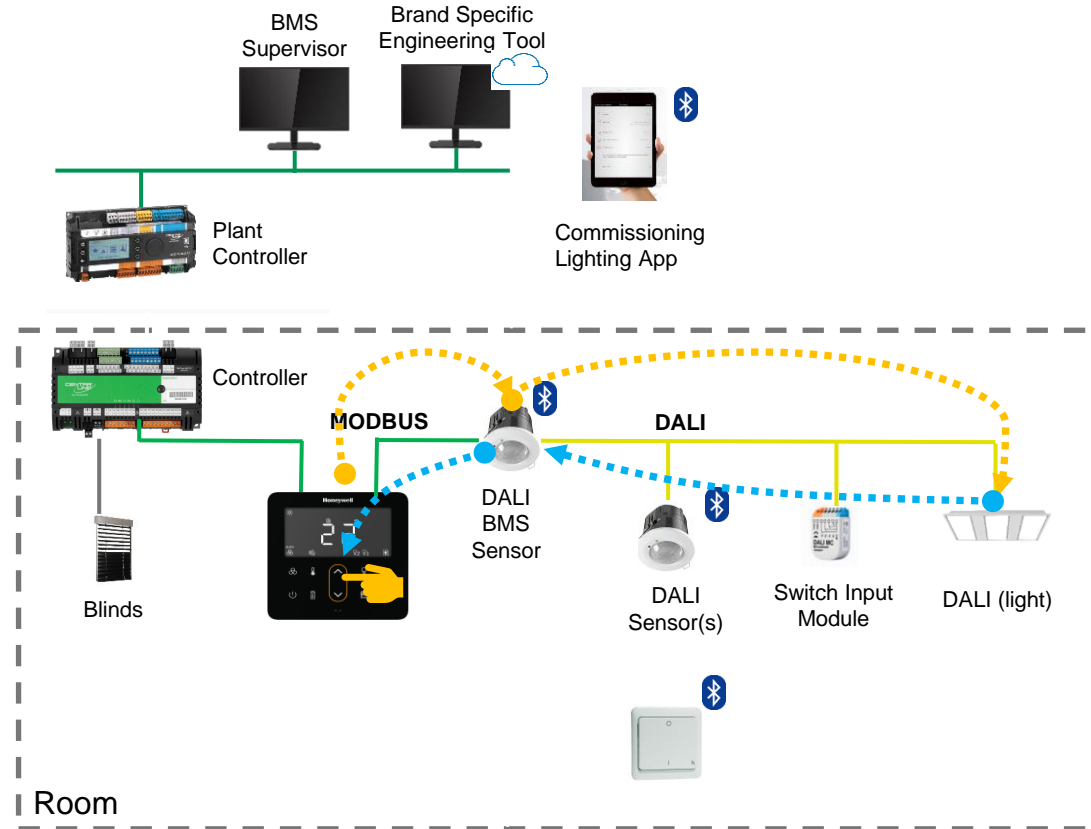- Built in DALI power supply (150mA)
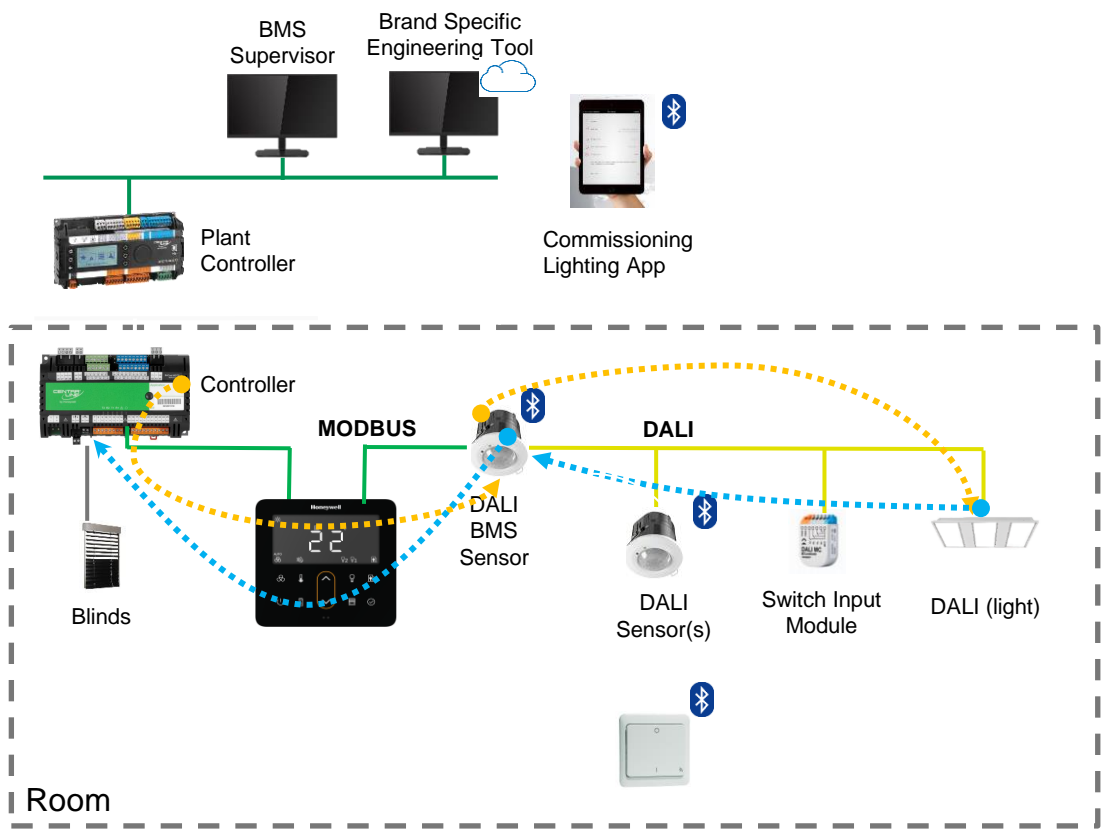

SYSTEM ARCHITECTURE

System Architecture #1 – Fælles Modbus

System Architecture #2 – standalone med vha. DALI-MODBUS Port

System Architecture #3 – med 2 MODBUS Ports

DALI64 INTERFACE PVID

PIR Sensor:
- Device Status
- Occupied Timeout
- Occupancy Mode

DALI Ballasts Gears/Groups:
- Gear Light State
- Gear Operating Hours
- Gear Energy Consumption
- Group Reset Counter
- Group Load-Shed Level
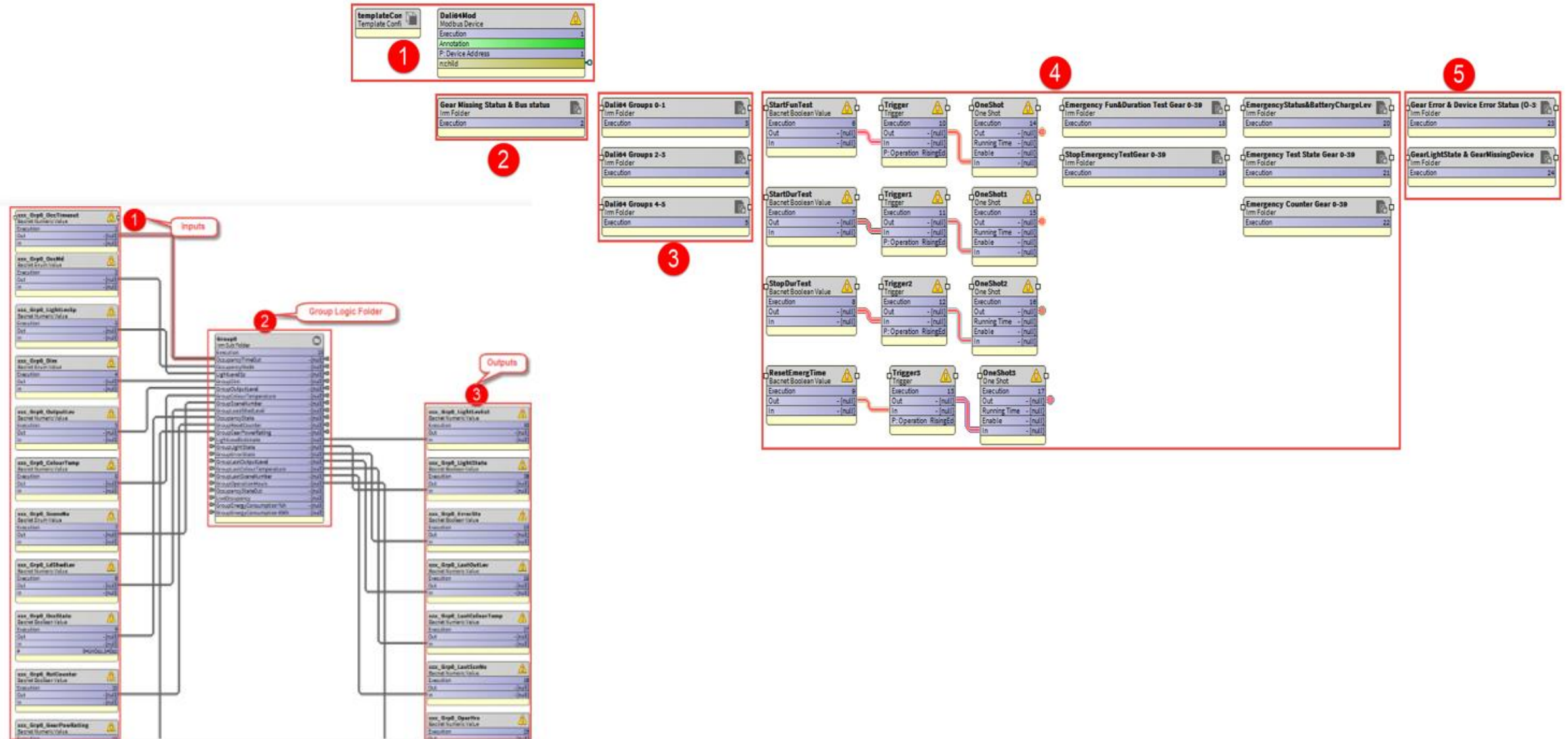
Setting and override options:
- Occupancy Time Out
- Occupancy Mode Override
- Light Level Setpoint
- Dim Up/Down Command
- Light Output Level Override
- Colour Temperature
- Scene Number
- Load Shed Level
- Occupancy Status Write
- Group Reset Counter
- Gear Power Rating

Feedback options:
- Light Level Estimate
- Group Light State
- Group Error Status
- Group Last Output Level
- Group Last Colour Temperature
- Group Last Scene Number
- Group Operating Hours
- Occupancy Status Read
- Live Occupancy

DALI64-MERLIN NX APPLICATION TEMPLATE

VI SES

"Praktiske aspekter og Live Demo af Modbus/Dali integration af rumstyring"

den 18. maj, kl. 13:00