

CBU-DCS profile

DALI Gateway

“Enabling wireless DALI networks”

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CBU-DCS with DALI gateway profile

- Integrate Casambi wireless networks with DALI
- Program, control & monitor a Casambi network from DALI
 - Device discovery, Grouping, Scenes...
- Wirelessly extend the 300m maximum DALI wiring distance
- Use DALI with non-DALI devices
 - Casambi enabled devices appear as standard DALI devices to the DALI system
 - Casambi enabled luminaires do not need DALI capabilities
 - Casambi enabled switches & sensors appear as DALI-2 devices
- DALI DT6 (dimming) & DT8 (Tuneable white, RGB, XY) support



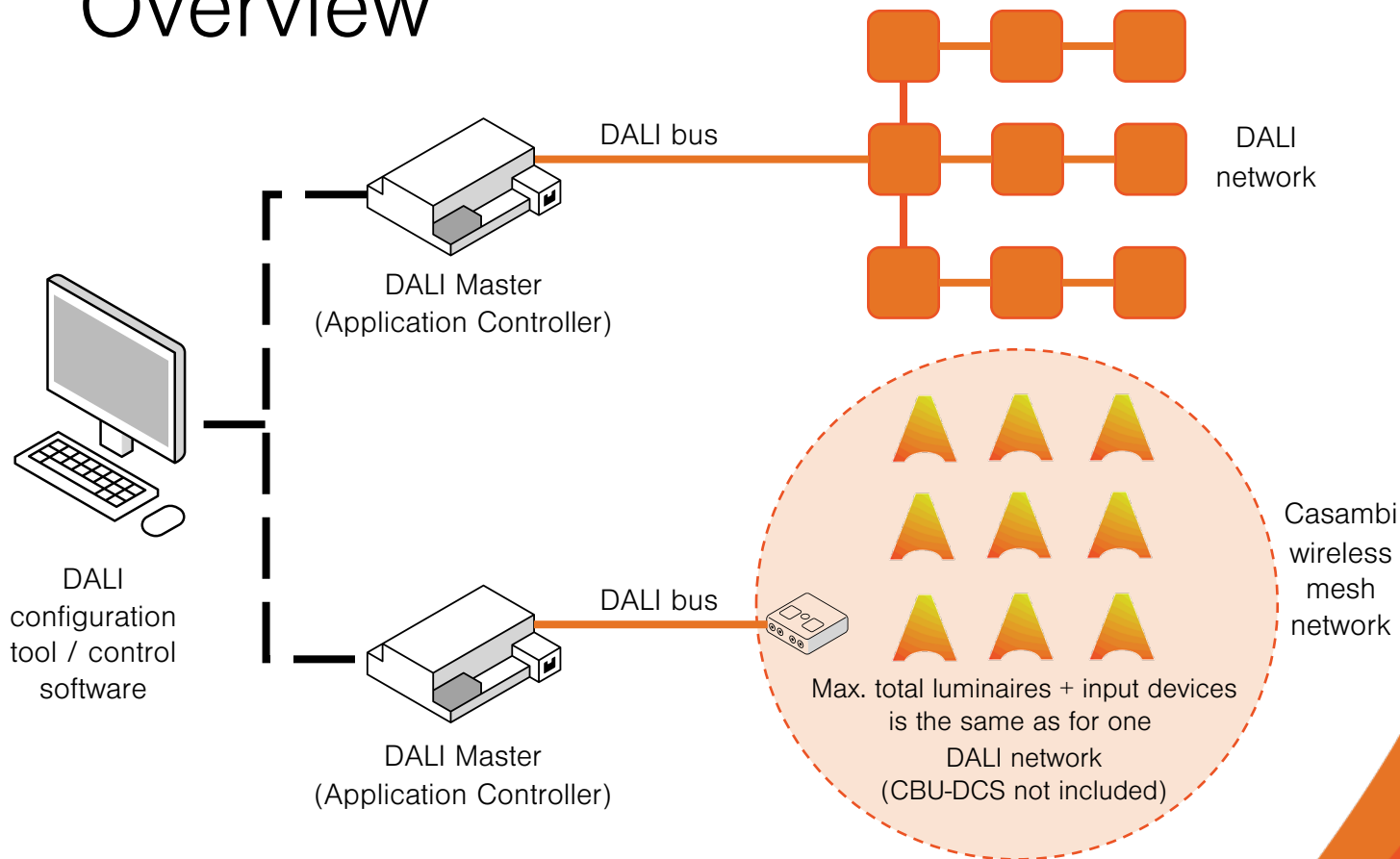
CBU-DCS with DALI gateway profile

- The DALI gateway is invisible to the DALI system
 - No DALI address required
- If desired, the Casambi network can also be used as normal
 - Program one set of functionality for DALI use
 - Program different functionality for the Casambi app
 - Control just from DALI, just from Casambi, or “mix & match”
 - Priorities for DALI commands sent to the Casambi network are defined in the Casambi app
- Multi-channel Casambi units appear as single-channel devices in the DALI configuration software
 - The separate channels can only be individually dimmed from the Casambi app

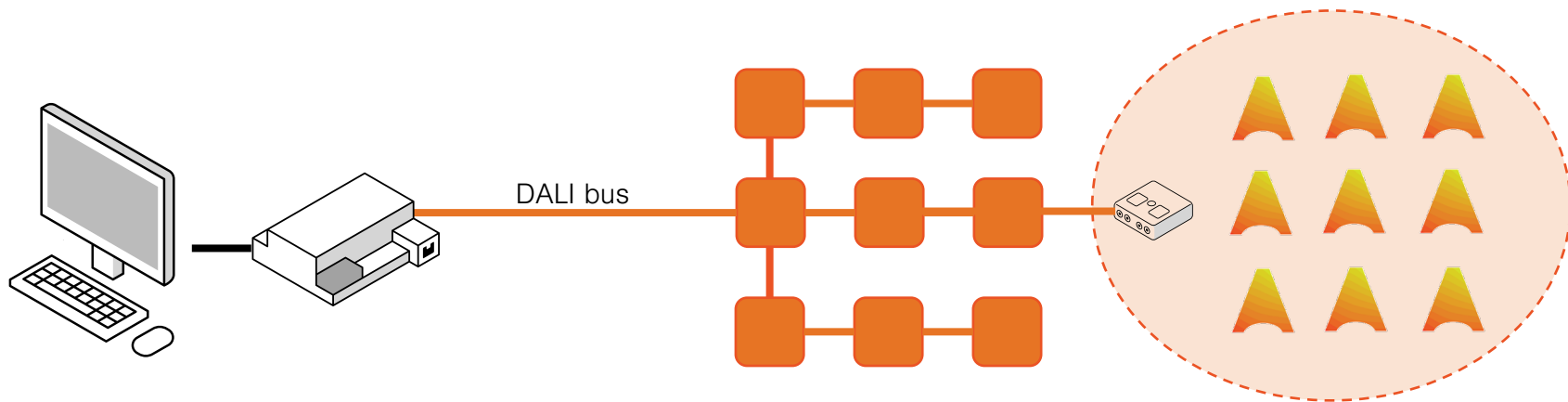
Ecosystem of interoperable devices

- Any of the following can be used as part of a Casambi network & as part of a DALI network
 - Casambi ready/enabled devices from the Casambi ecosystem
 - DALI devices from the DALI ecosystem
 - EnOcean devices
 - 1-10V & 0-10V devices
 - Pulse Width Modulation (PWM) controllable LED-strips
 - Phase cut dimmable light sources

Overview



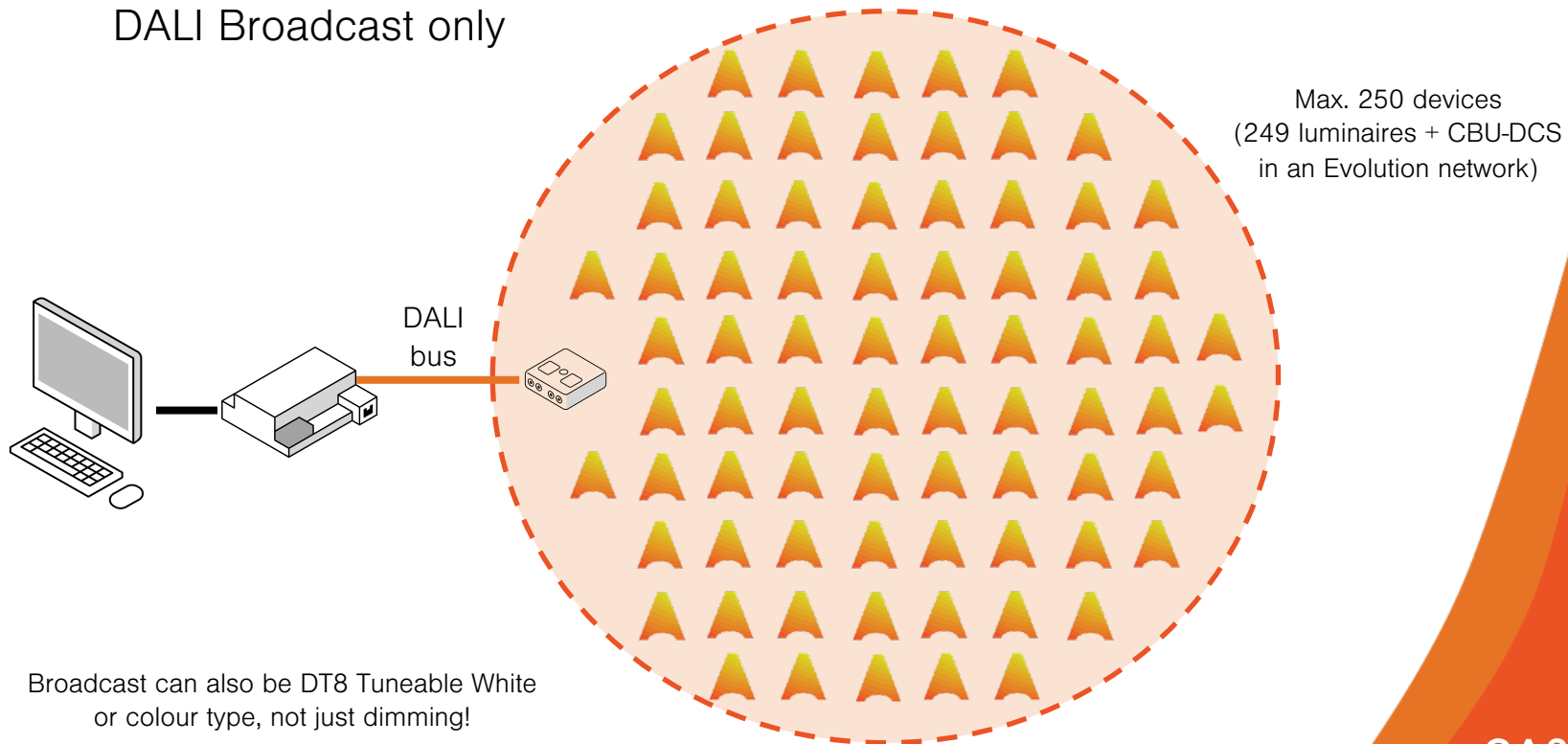
Expand an existing DALI network



Max. total luminaires + input devices
is the same as for one DALI network
(CBU-DCS not included)

Control a larger Casambi network (1)

DALI Broadcast only

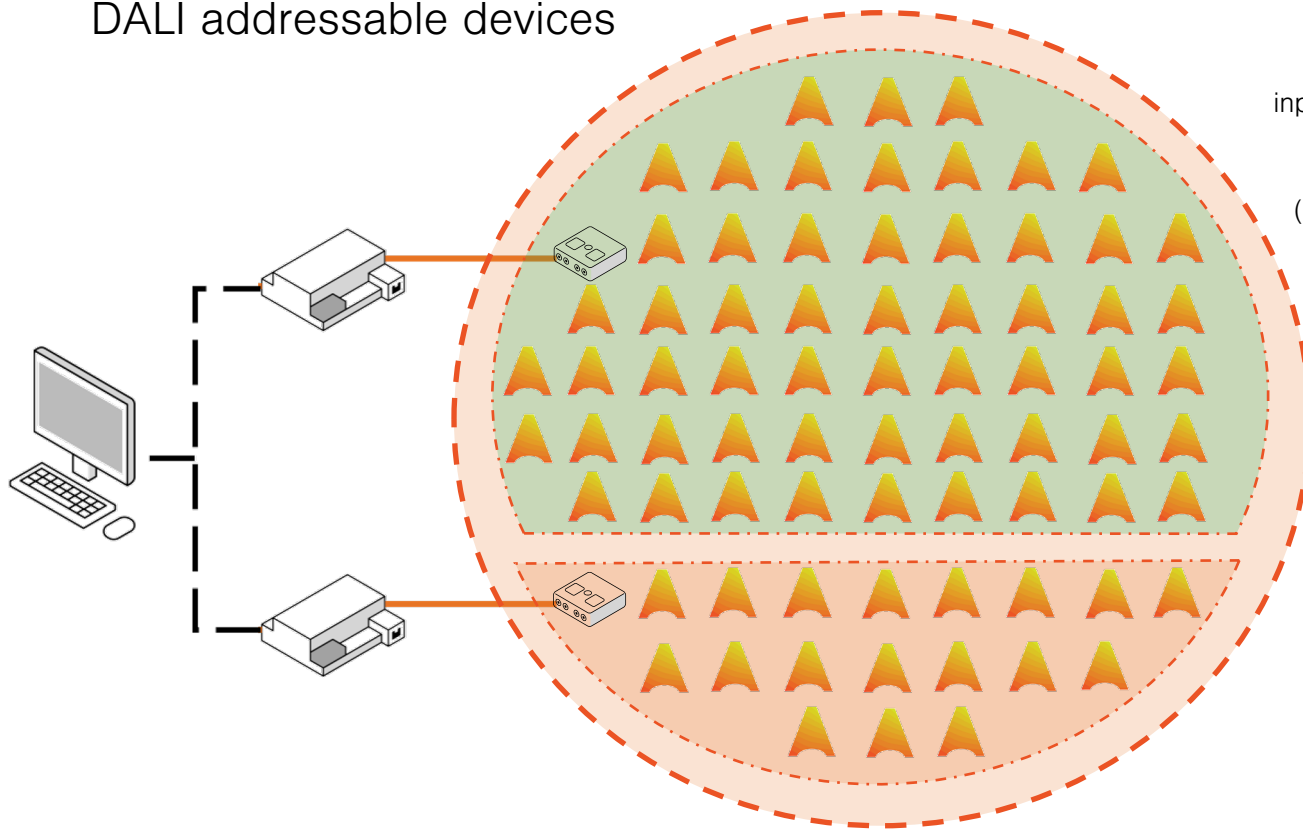


Broadcast can also be DT8 Tuneable White or colour type, not just dimming!

CASAMBI

Control a larger Casambi network (2)

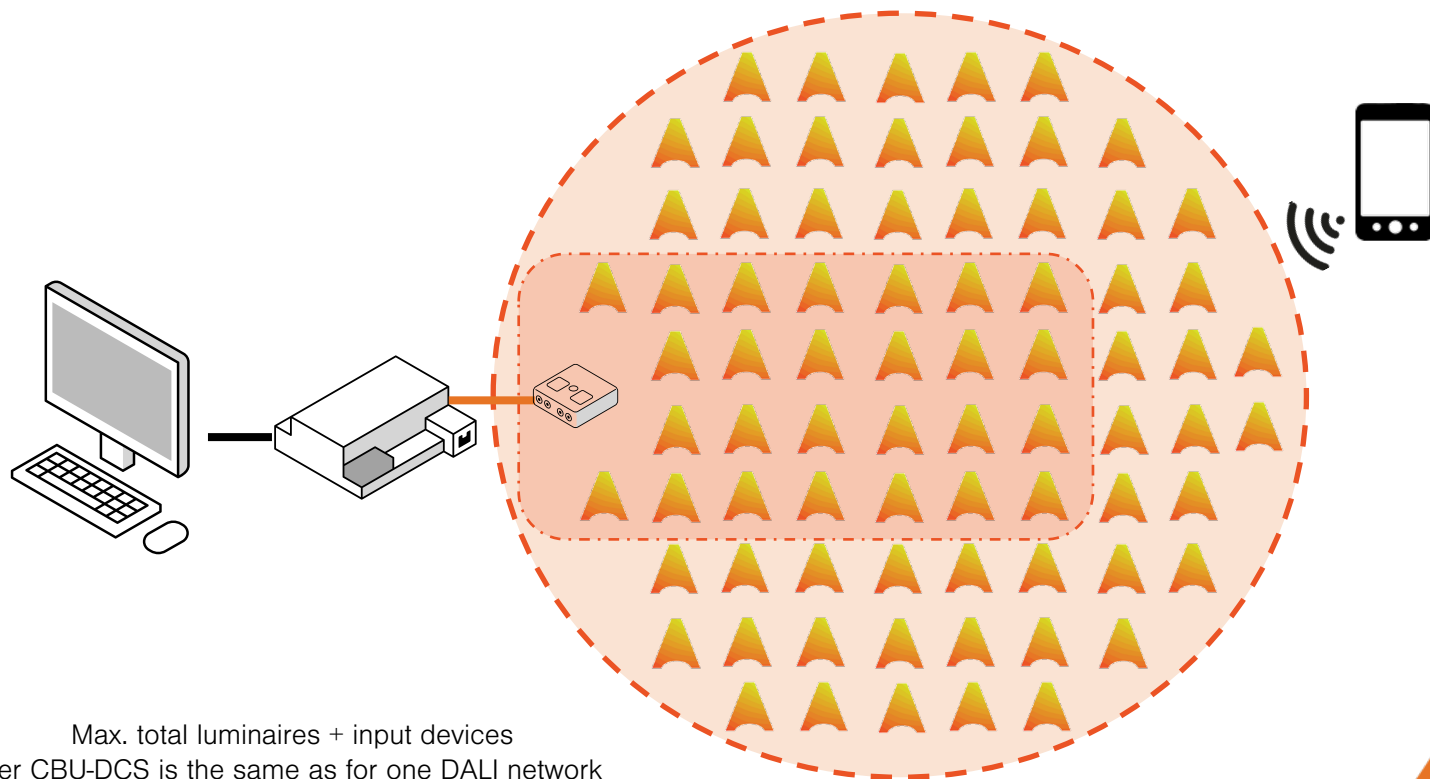
DALI addressable devices



Max. total luminaires +
input devices per CBU-DCS
is the same as for one
DALI network
(CBU-DCS not included)

Max. 250 devices
in one Casambi
Evolution network

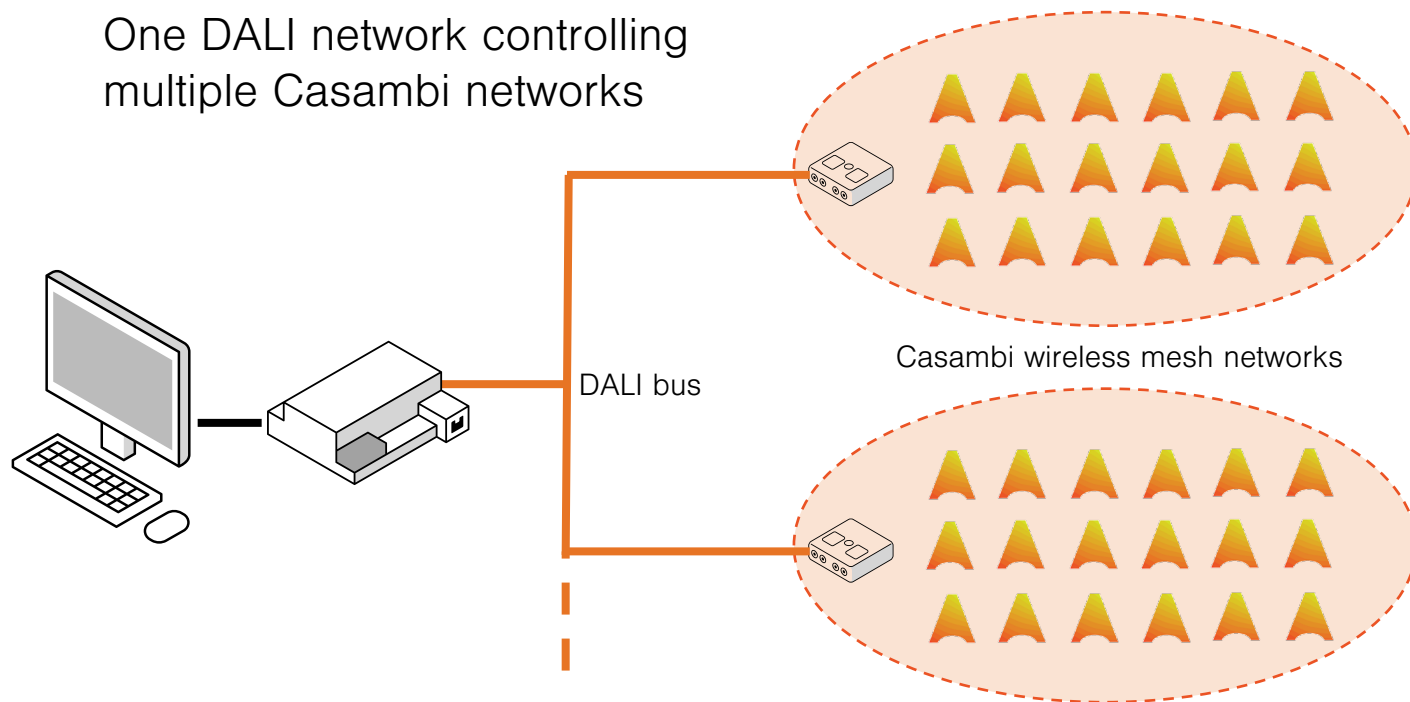
Partial control of a Casambi network



Max. total luminaires + input devices
per CBU-DCS is the same as for one DALI network
(CBU-DCS not included)

Control multiple Casambi networks (1)

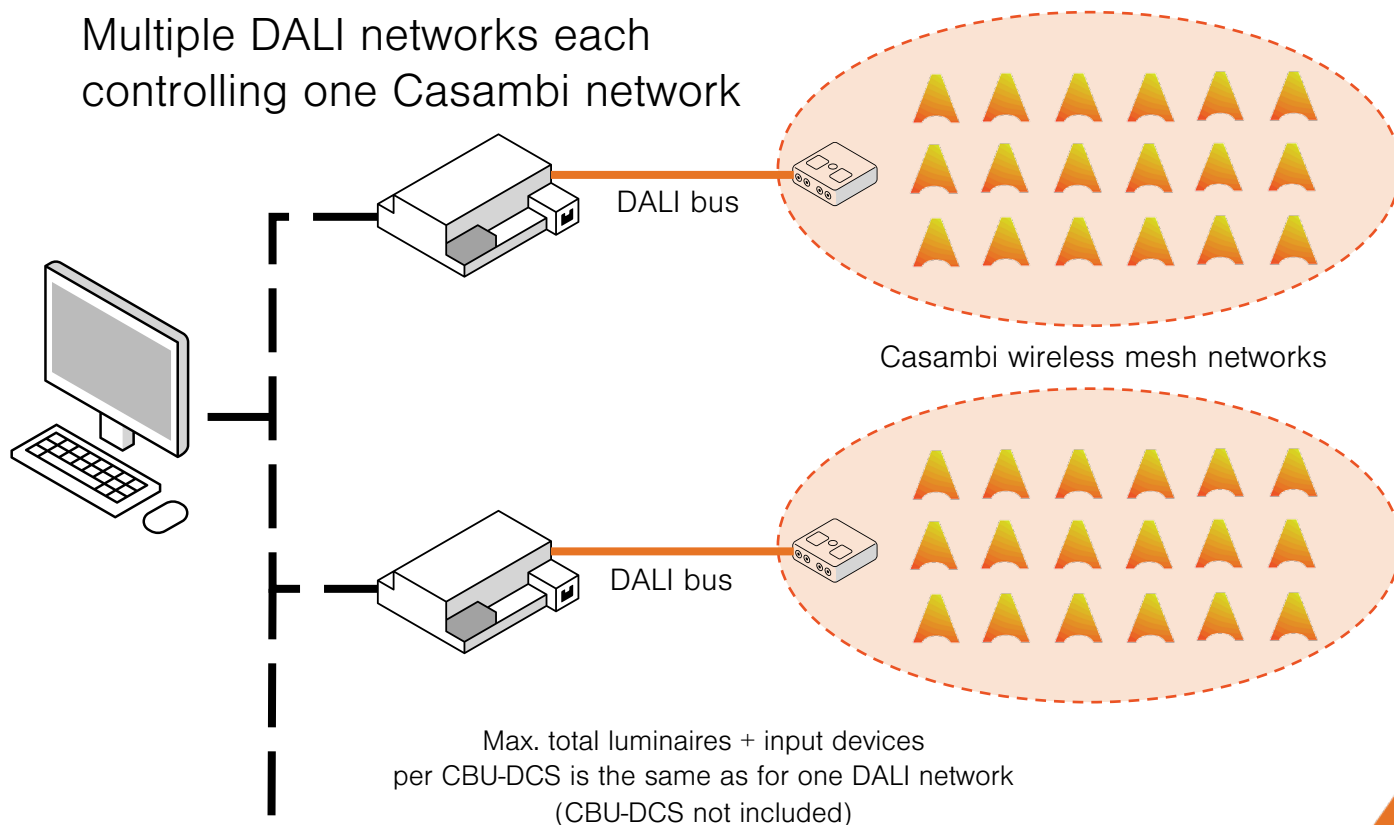
One DALI network controlling
multiple Casambi networks



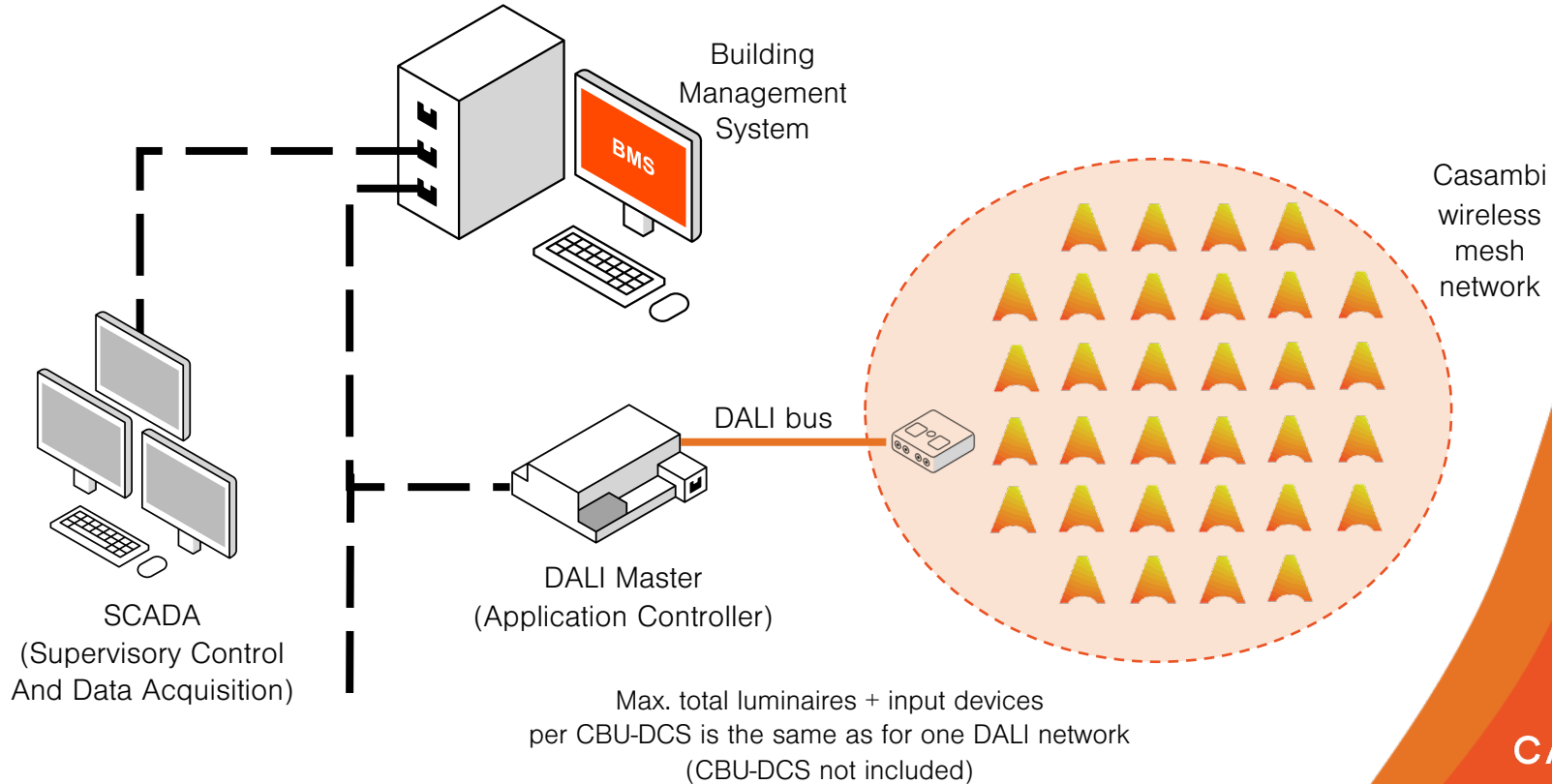
Max. total luminaires + input devices
is the same as for one DALI network
(CBU-DCS not included)

Control multiple Casambi networks (2)

Multiple DALI networks each
controlling one Casambi network



Connect to Building Management Systems



DALI Gateway profile “Instance” limitations

- Support for 80 “instances” from input devices in a Casambi network
 - Input devices are products such as switches & sensors
 - Luminaires do not produce “instances” unless they have an integral push-button, switch or sensor
- An “instance” is the quantity of “sub-devices” included in one main device
- One DALI addressable Casambi network can contain:
 - Up to 64 luminaires
 - Up to 64 input devices (without exceeding the 80 “instance” limit)



Single Push
Button/Switch



Motion
sensor



Presence &
Lux Sensor



Xpress
(4 buttons)

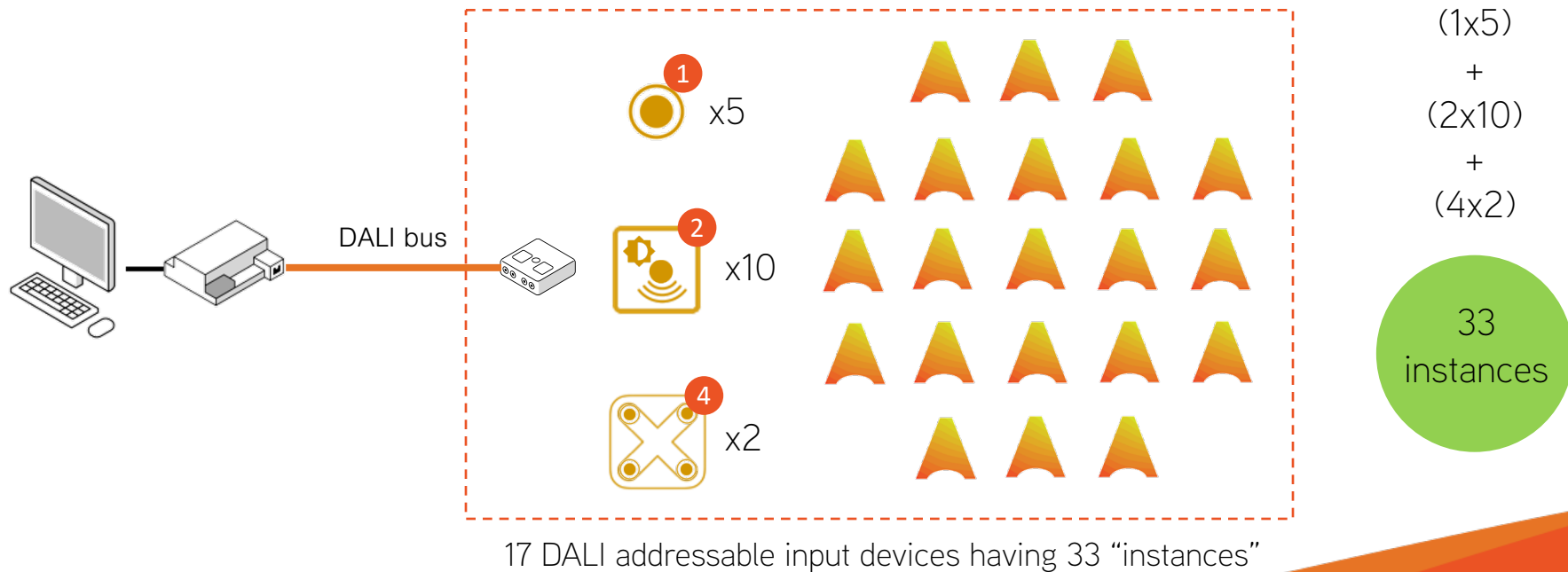


EnOcean
Switch
(4 buttons)

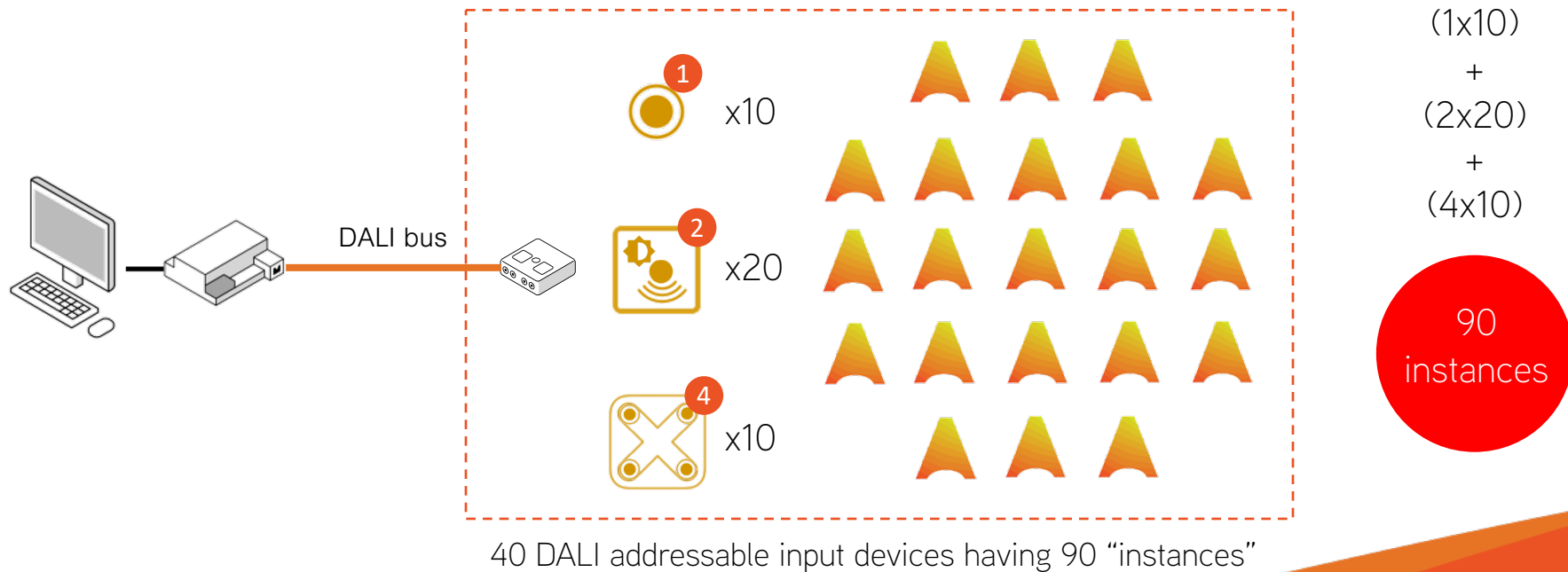


Luminaire

Example: 80 instance limit OK

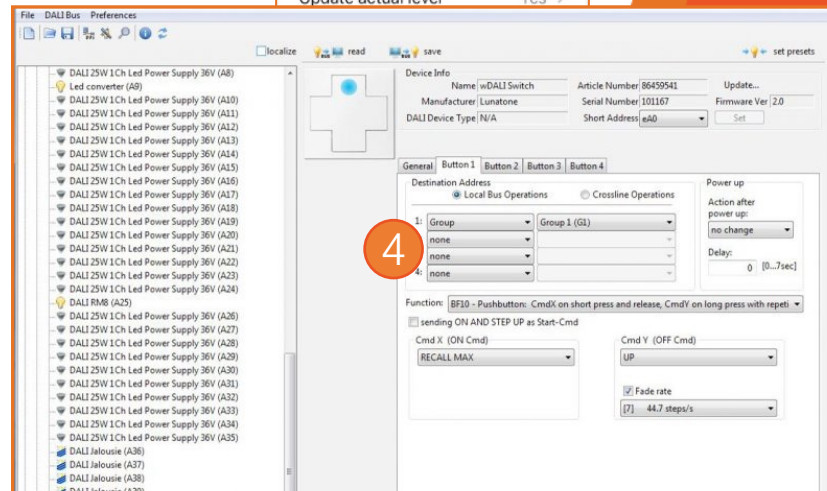
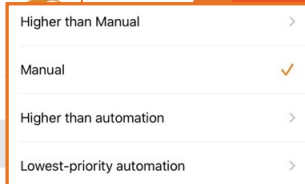
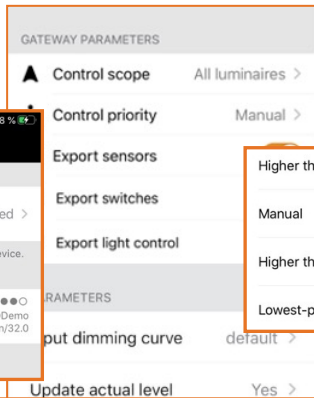
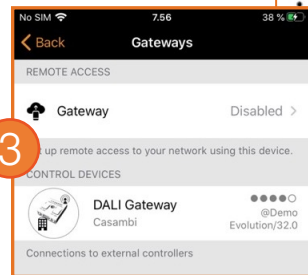


Example: 80 instance limit exceeded



Configuration

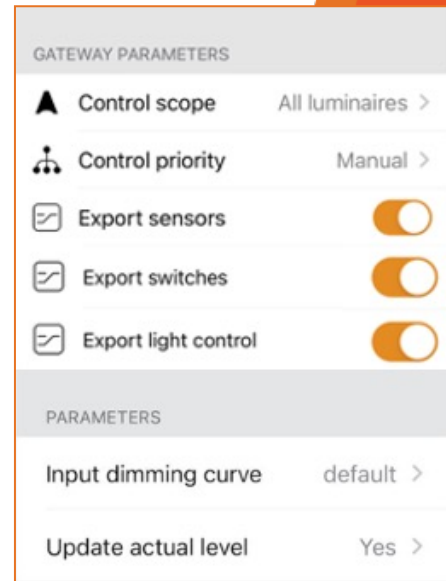
- Connect the CBU-DCS to the DALI network
- Create a Casambi network & pair all devices (including the CBU-DCS)
- Configure the DALI gateway in the Casambi app
 - Define the command Control scope & priorities
 - Enable Export sensors/switches if sensors & "push-buttons" need to be seen from DALI
 - Enable Export light control if dimmed level changes should automatically be seen by the DALI network
 - Define dimming update parameters
- Program from your DALI configuration software
- (No DALI reprogramming needed if a Casambi device needs replacement at a later date)



CASAMBI

Control scope

- Defines which devices from then Casambi network have information passed though the DALI gateway to the DALI control software
- The default option is “All luminaires”
- The scope can also be restricted to a single “scene” containing just luminaires to be controlled by the DALI controller software
 - The ”scene” is the method to group luminaires so that they can be allocated to a specific DALI gateway



Control priorities

Higher than manual

- Prevents the Casambi system from controlling Casambi devices
 - Casambi devices are only controlled by the DALI controller

Manual (default setting)

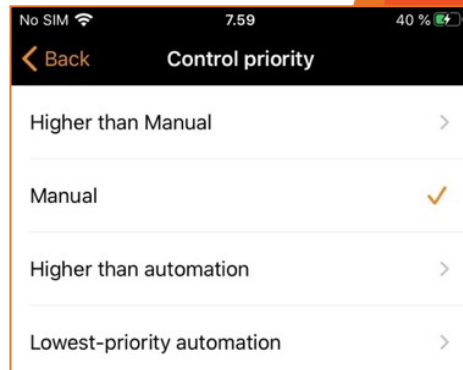
- Allows control by both the DALI controller software & from Casambi

Higher than automation

- Allows the DALI controller software to control lights under automation but not those manually controlled from Casambi

Lowest-priority automation

- The DALI controller only controls lights at the lowest automation level
- Any control from Casambi will override set dimming levels



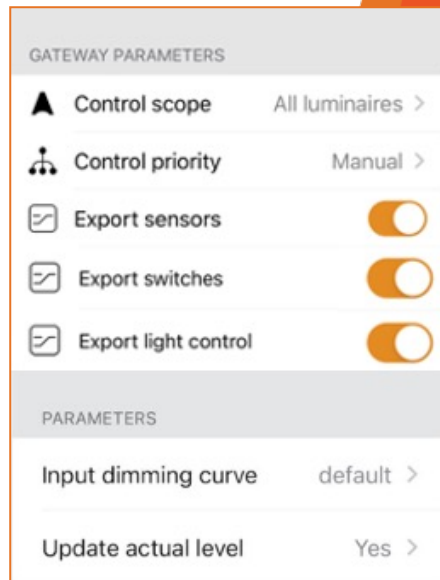
Parameters

Input dimming curve

- Defines how the dimming curve levels that the DALI system sends to the Casambi DALI Gateway are handled within the Casambi network

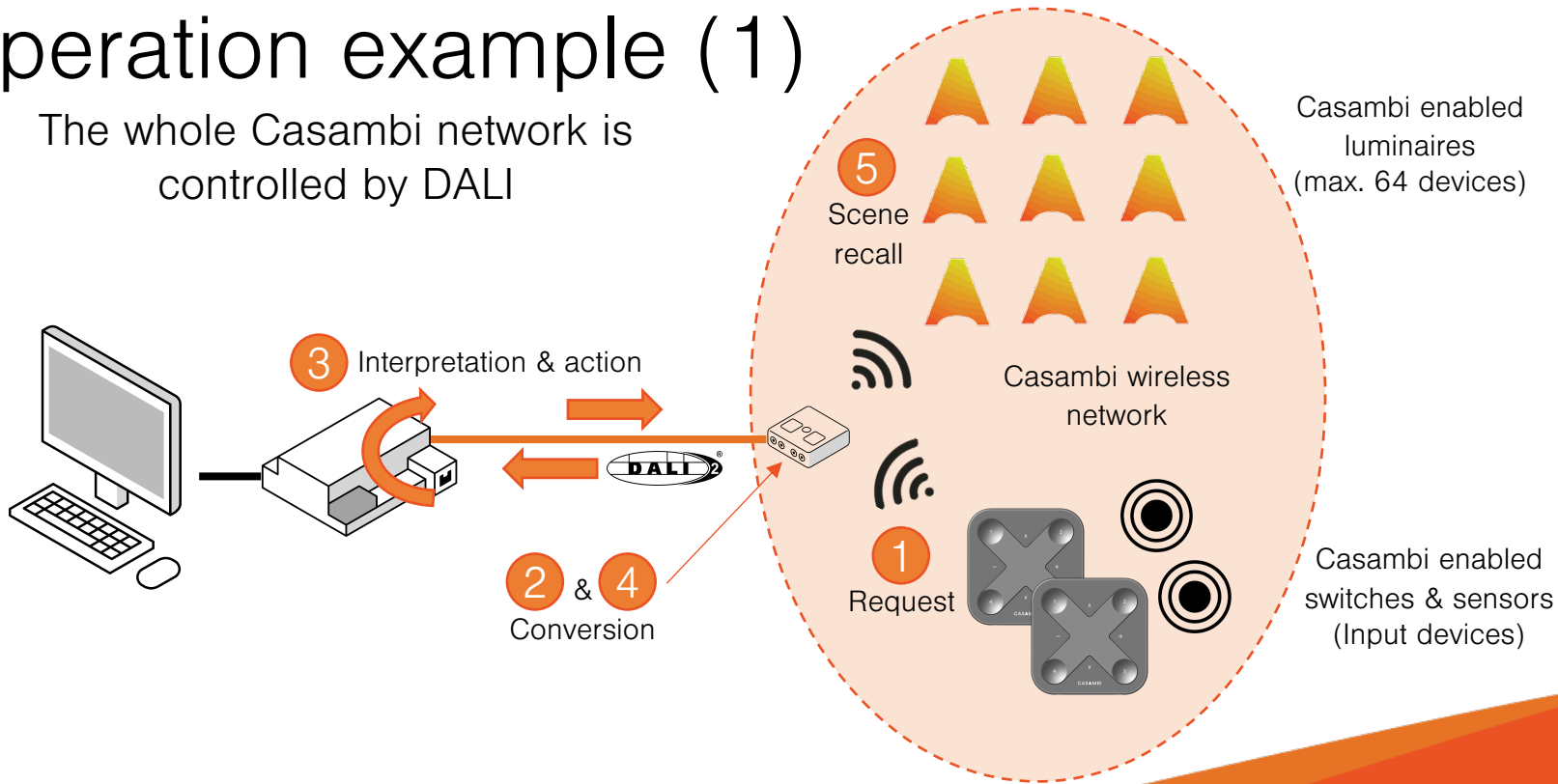
Update actual level

- Defines if changes to luminaire dimmed levels or colour that are made by the Casambi network will be visible to the DALI system



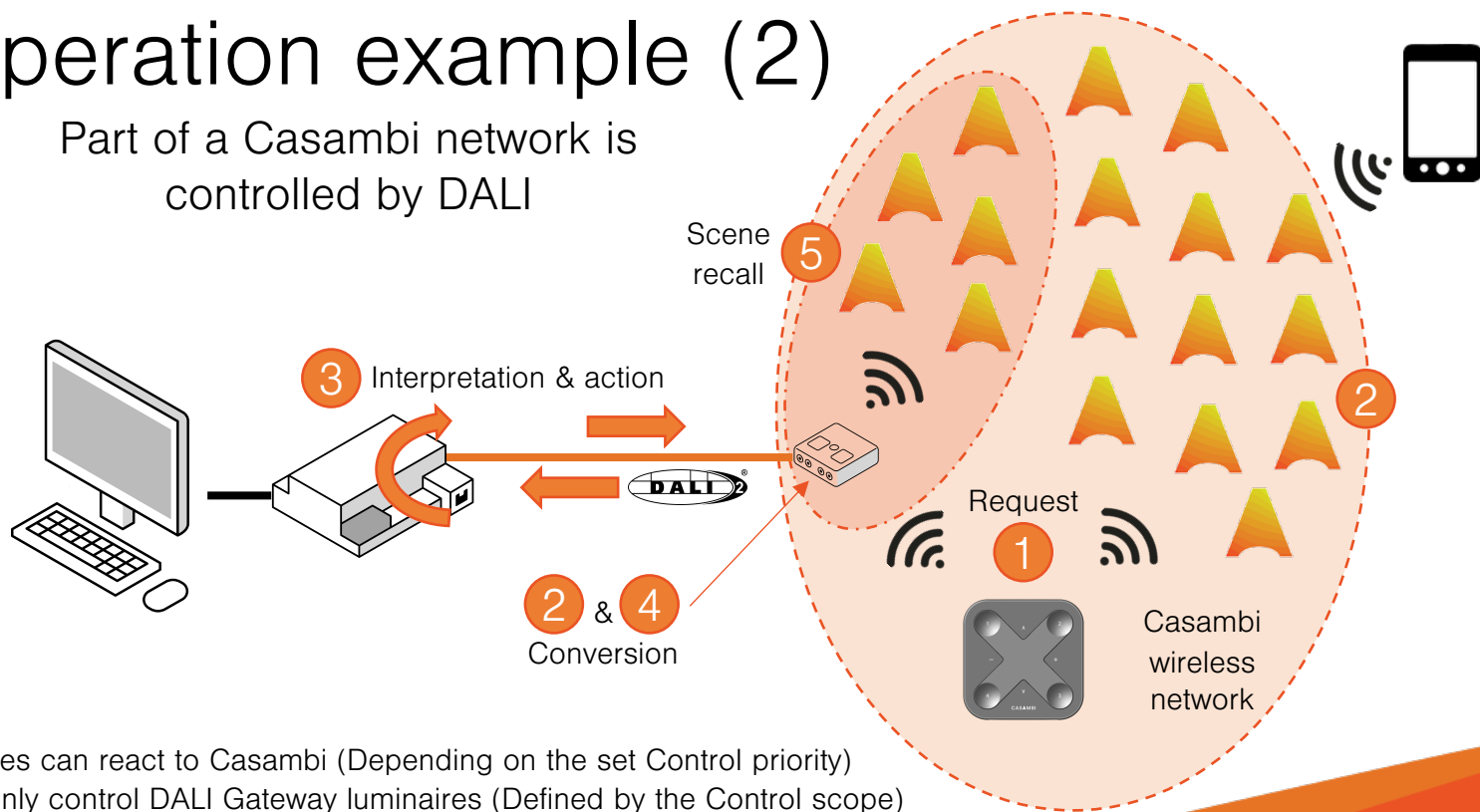
Operation example (1)

The whole Casambi network is controlled by DALI



Operation example (2)

Part of a Casambi network is controlled by DALI



- All luminaires can react to Casambi (Depending on the set Control priority)
- DALI can only control DALI Gateway luminaires (Defined by the Control scope)