

Where does DALI Fit in a Wireless World?

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DiiA / OSRAM



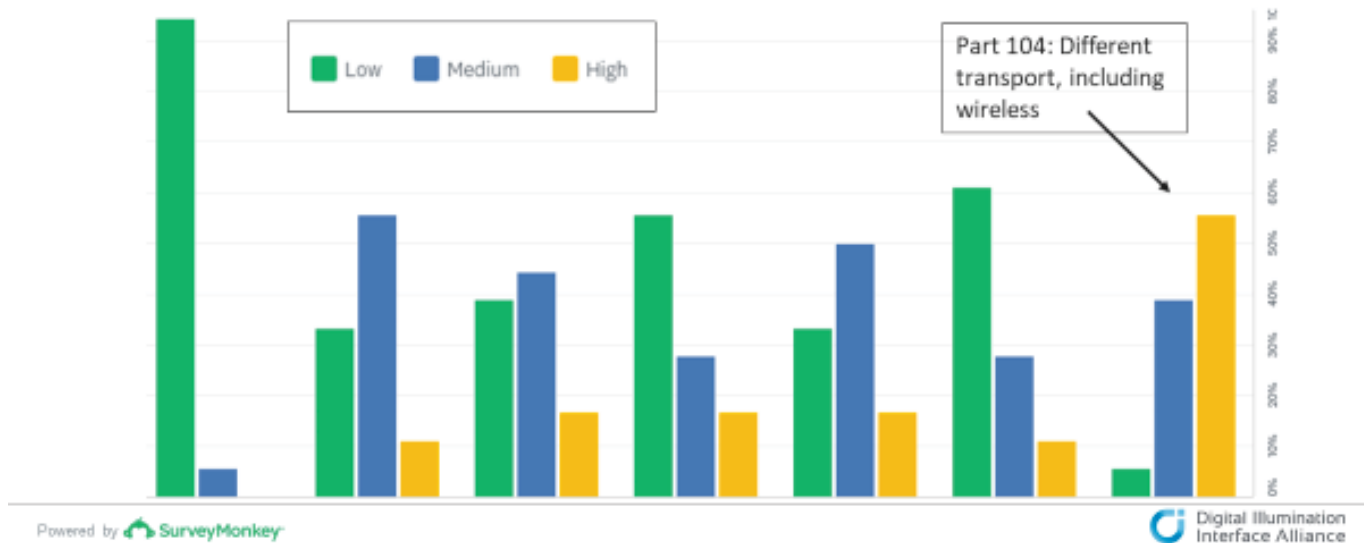
Digital Illumination
Interface Alliance

Many wireless ecosystems already leverage DALI/D4i in the luminaire – Enough?



Enough? – The DiiA member survey says no!

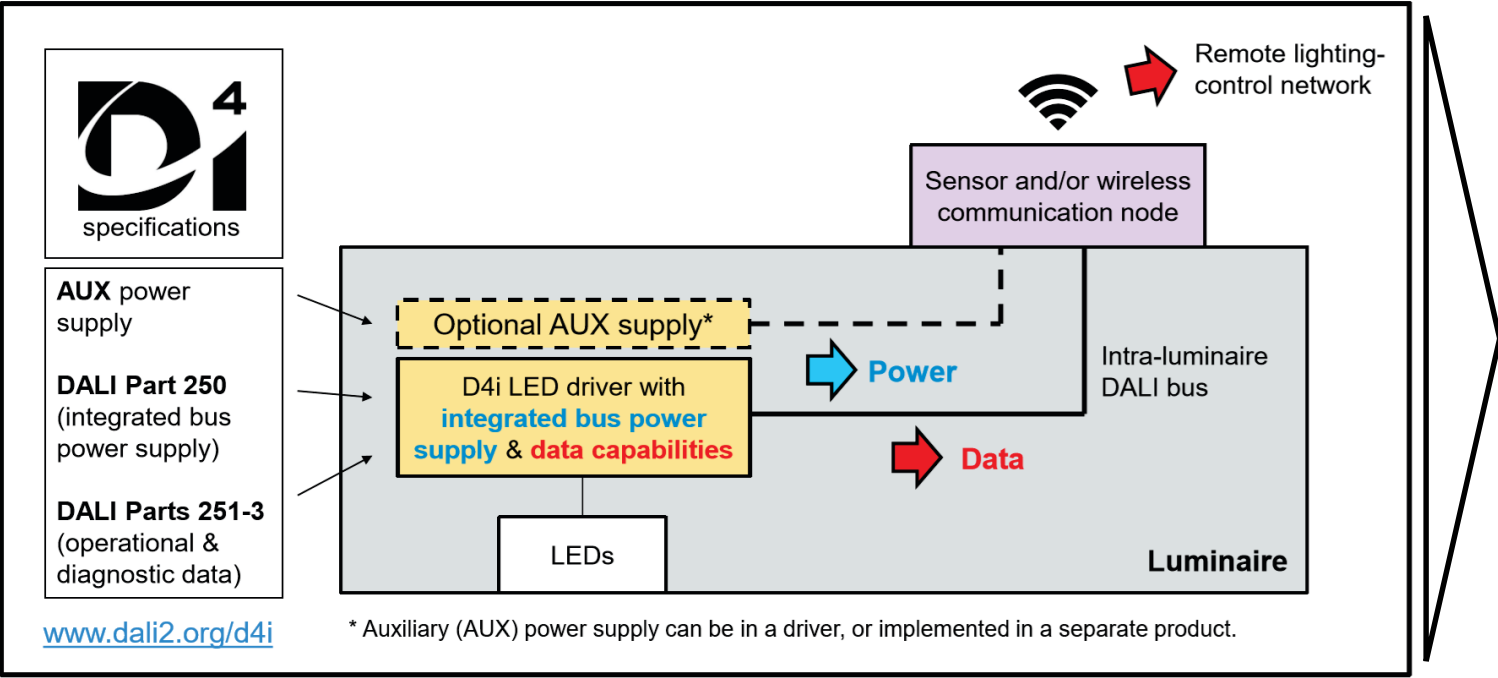
Q3: The current status of DALI-2 certification is shown on our website (www.dali2.org/dali2). Please note that Parts 202, 209, and the D4i Parts are all in progress. What further Parts should be added to DALI-2 certification? Please indicate your priority: low – medium – high



Where does DALI Fit in a Wireless World?

The boon and bane of having options

D4i gives many options how to connect a DALI / D4i based luminaire with wireless networks. So far, DiiA is wireless-protocol agnostic.



The boon and bane of having options



Best choice in:

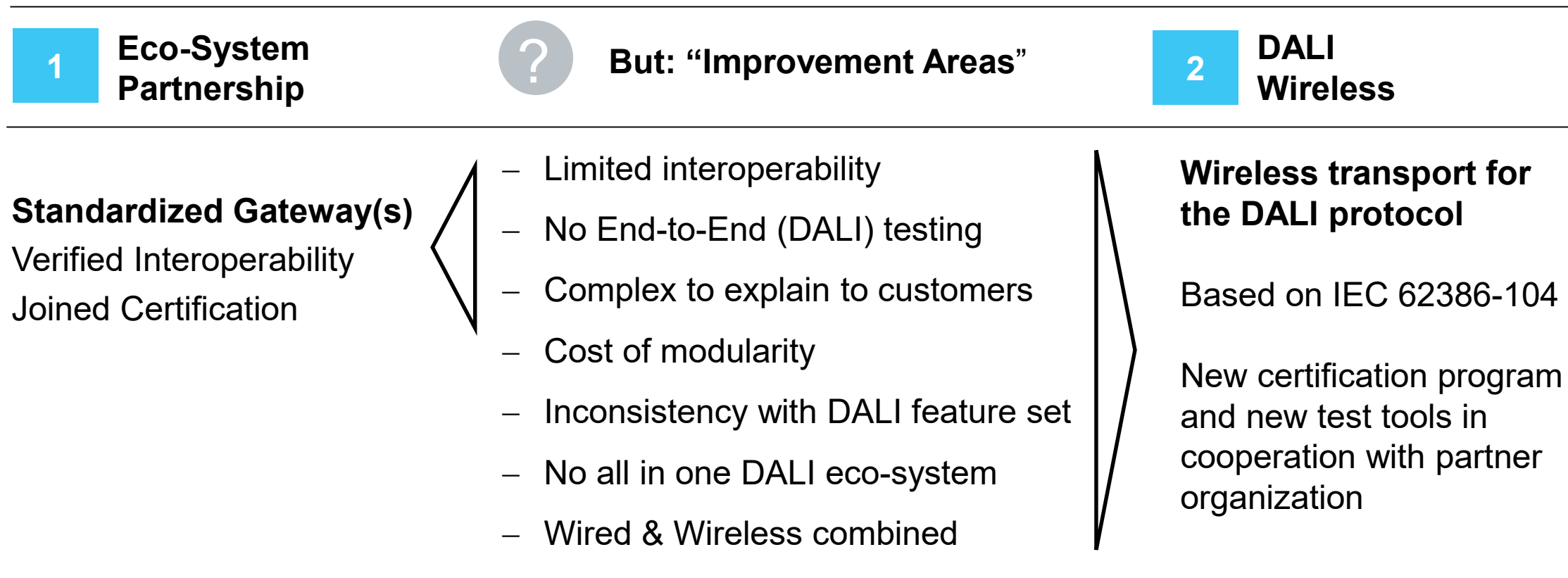
- Application protocol
- Radio range
- Data rate
- Legislative requirements fit
- Cost/Performance match
- Fit with existing eco-system



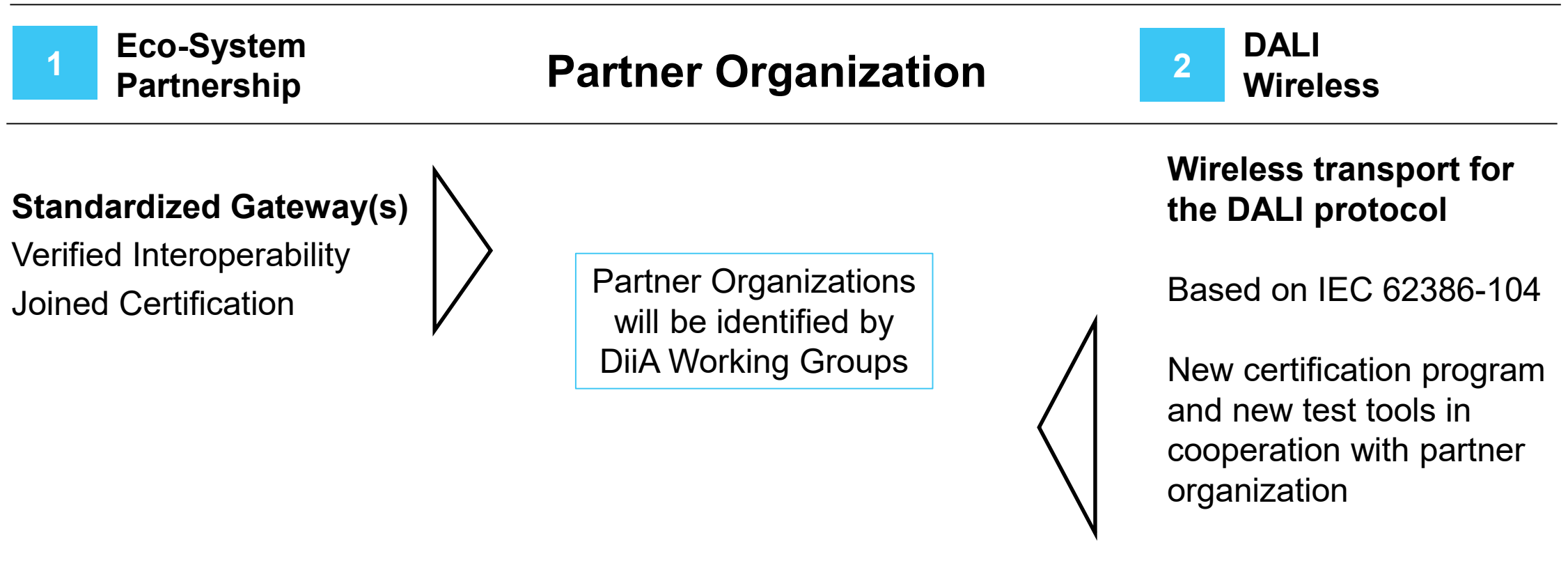
But: “Improvement Areas”

- Limited interoperability
- No End-to-End (DALI) testing
- Complex to explain to customers
- Cost of modularity
- Inconsistency with DALI feature set
- No all-in-one DALI eco-system
- Wired & Wireless combined

Two Programs started in DiiA



Most wanted by Regular Members...



Gateway Standardization

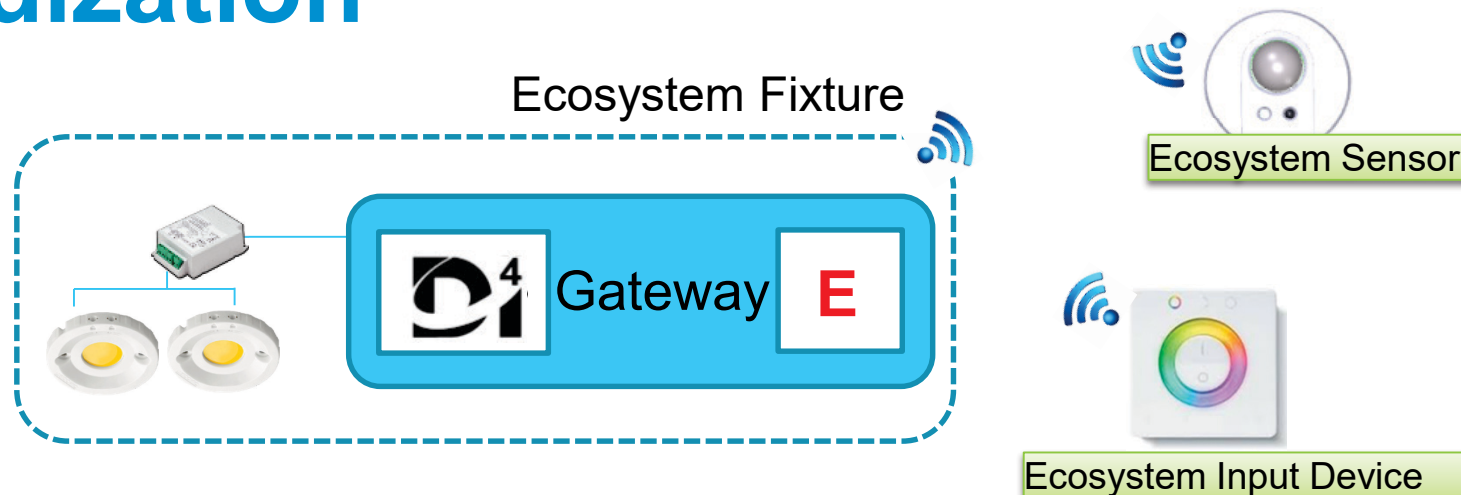
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Eco-System Partnership

Standardized Gateway(s)

Verified Interoperability

Joined Certification



Specify gateway behavior:

- 1) Create consistency of interpretation for control commands
- 2) Certification of gateway components including "DALI Style" verification of physical lighting parameters
- 3) DiiA will focus on D4i gateway applications first. D4i luminaires do not require commissioning on the D4i subnet. A D4i-Ecosystem gateway practically makes a luminaire an Ecosystem luminaire.

Native DALI Wireless Ecosystem

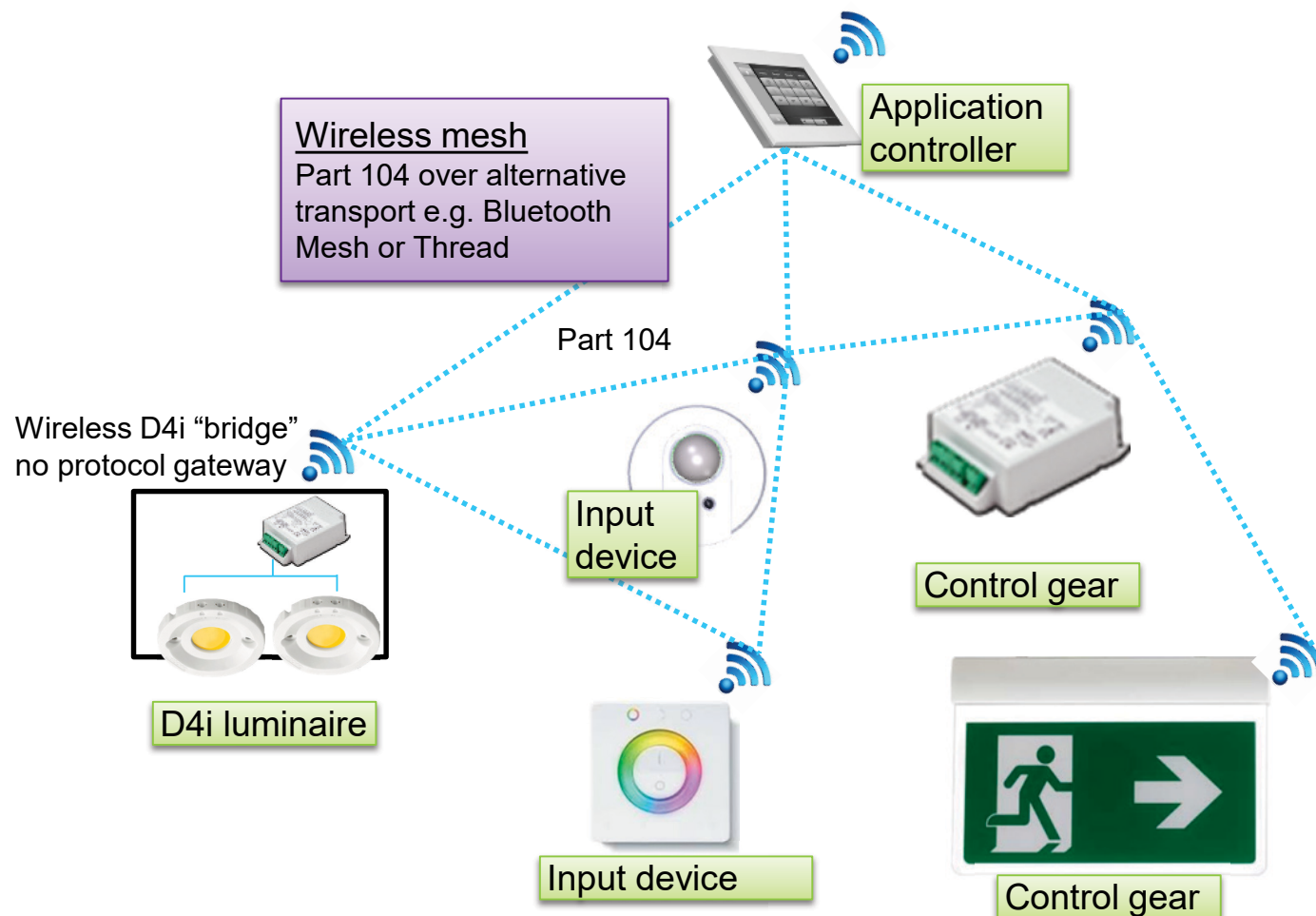
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DALI Wireless

Wireless transport for the DALI protocol

Based on IEC 62386-104

New certification program and new test tools in cooperation with partner organization



Native DALI Wireless Ecosystem

Where Does the [DALI Wireless Ecosystem](#) Fit in a Wireless World?
What would be the unique feature set in a world of options?

Full DALI Feature Set – Same as Wired

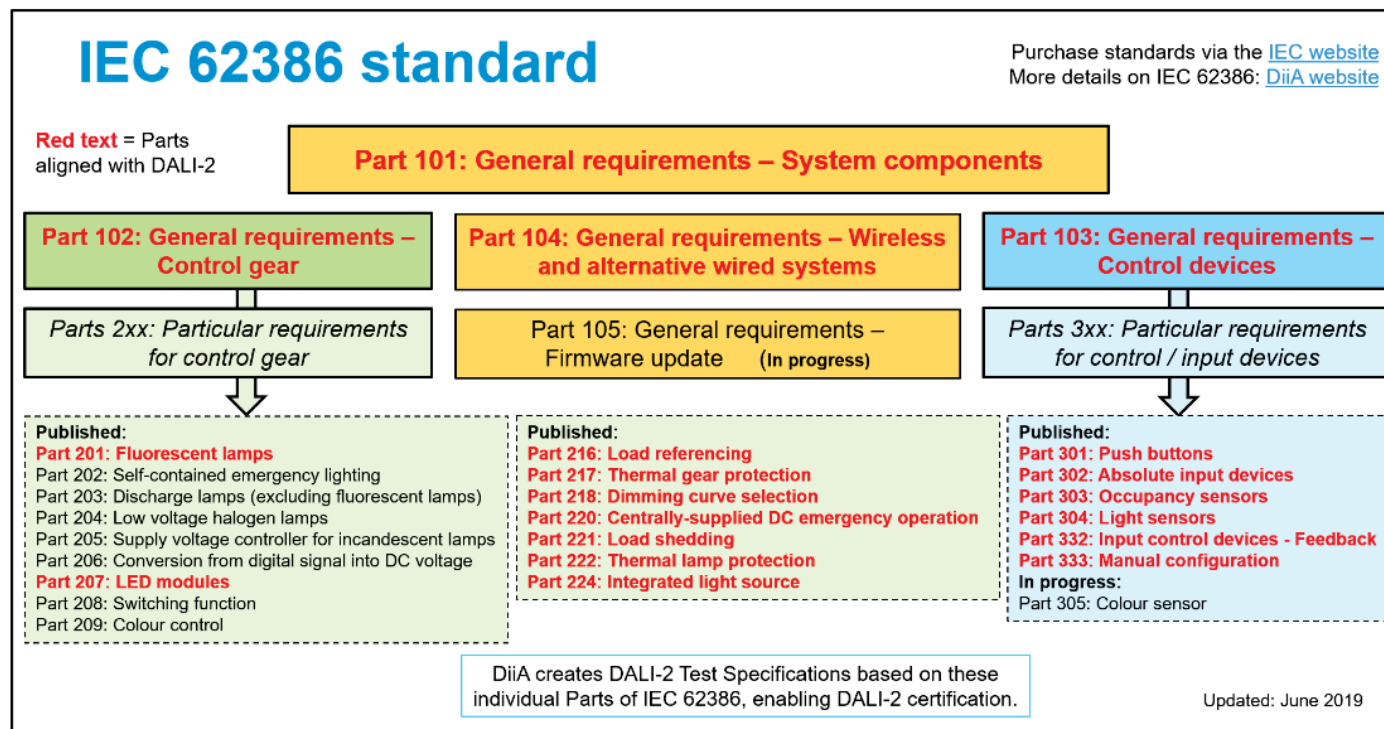
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Wired & Wireless in One System

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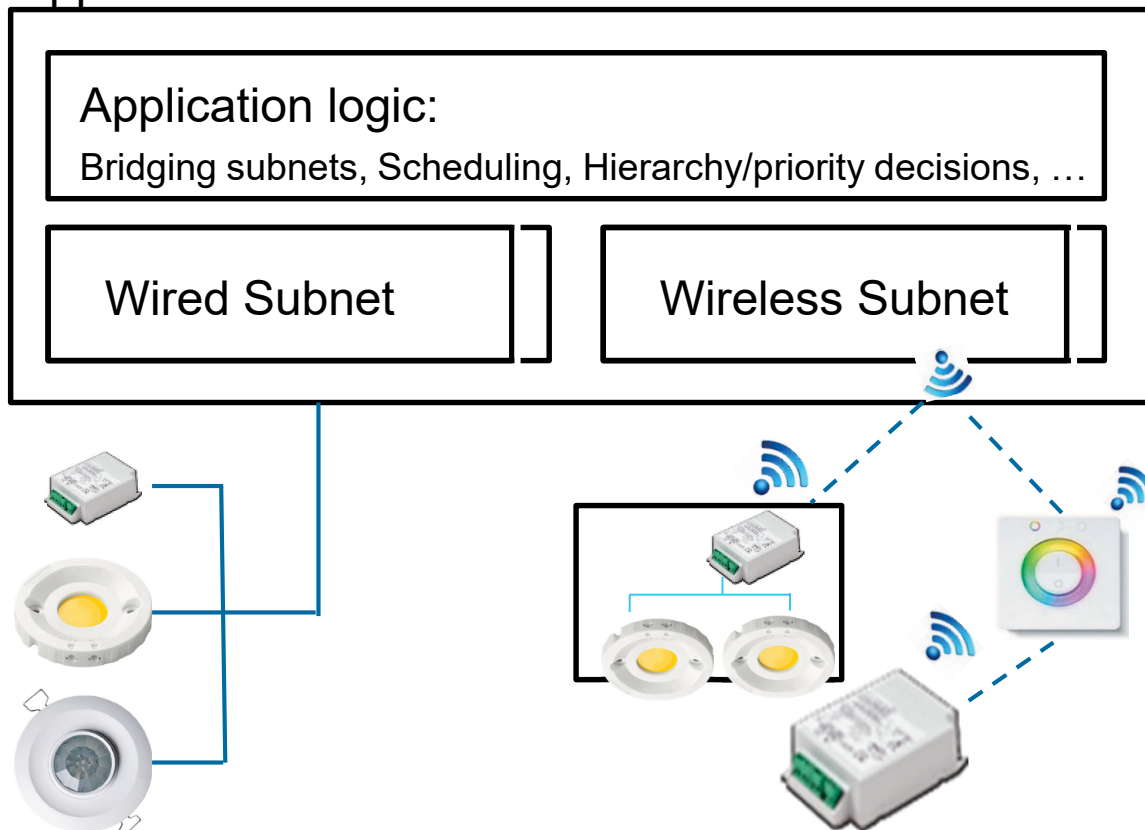
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Application Controller



Strong Certification Program

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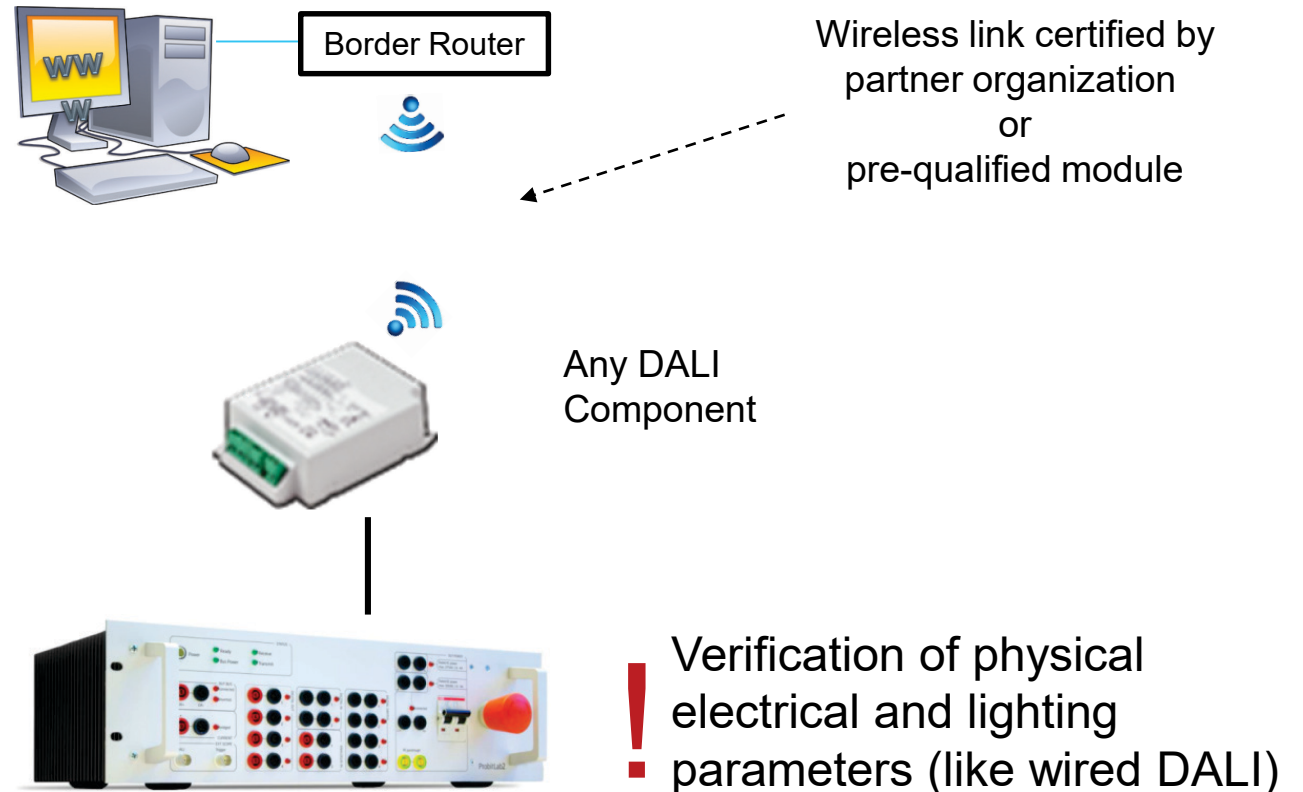
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Verification setup (data model):



Talks to IP Backbone in Buildings

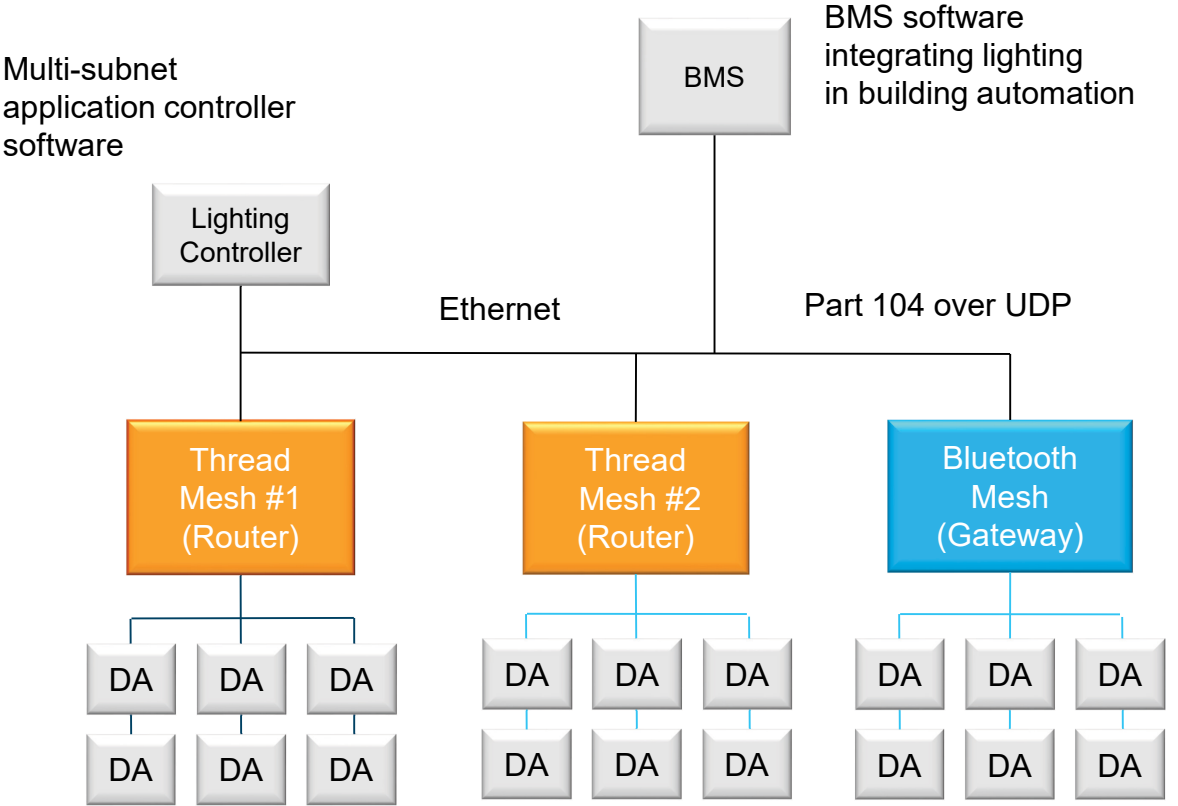
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DALI Subnets may work independent or be linked through the IP backbone

Multiple Carrier Technologies

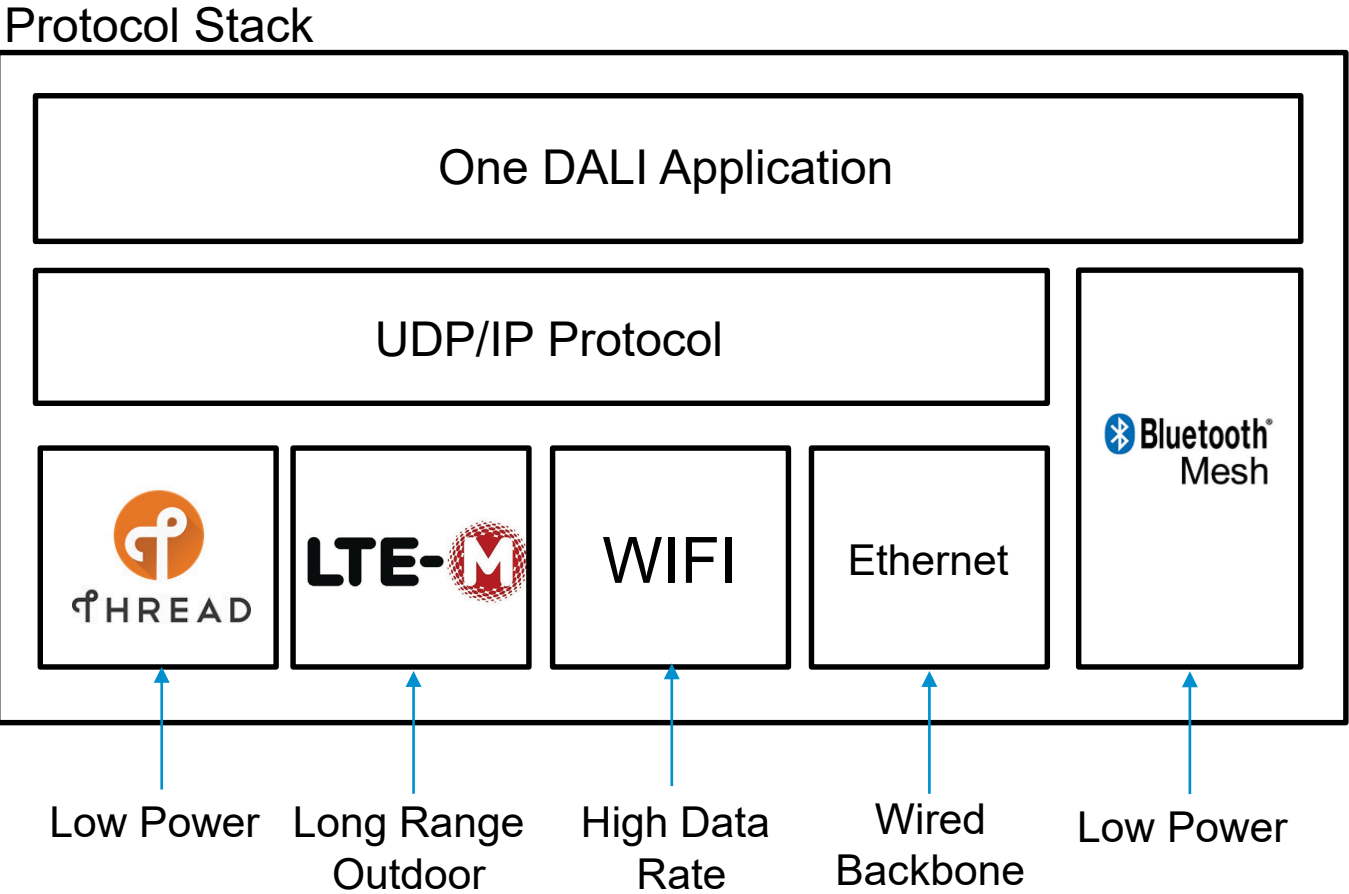
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DALI
Wireless

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Summary

- DALI fits in a Wireless World in multiple ways.
- There will not be ONE protocol dominating the world any soon.
- Standardized gateways will allow use of D4i with multi-vendor ecosystems.
- Native DALI has the opportunity to win important markets with its unique set of features combining wired and wireless on multiple carriers including IP-based carriers.

