



Connected Buildings in Practice

What's Possible Today and What's Coming Next

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Founder of Fernhill Shopworks

- 15+ years straddling the utility and lighting industries

Works with Clients Around the Country Providing

- Program Design
- Trade Ally Network Engagement
- Market Research & Education
- Developing hands-on resources



Why This Topic Matters Now

- Buildings are becoming more connected and data-driven
- Energy codes and performance standards are increasing
- Customers expect flexibility and smarter operation
- Controls are no longer optional, they are central

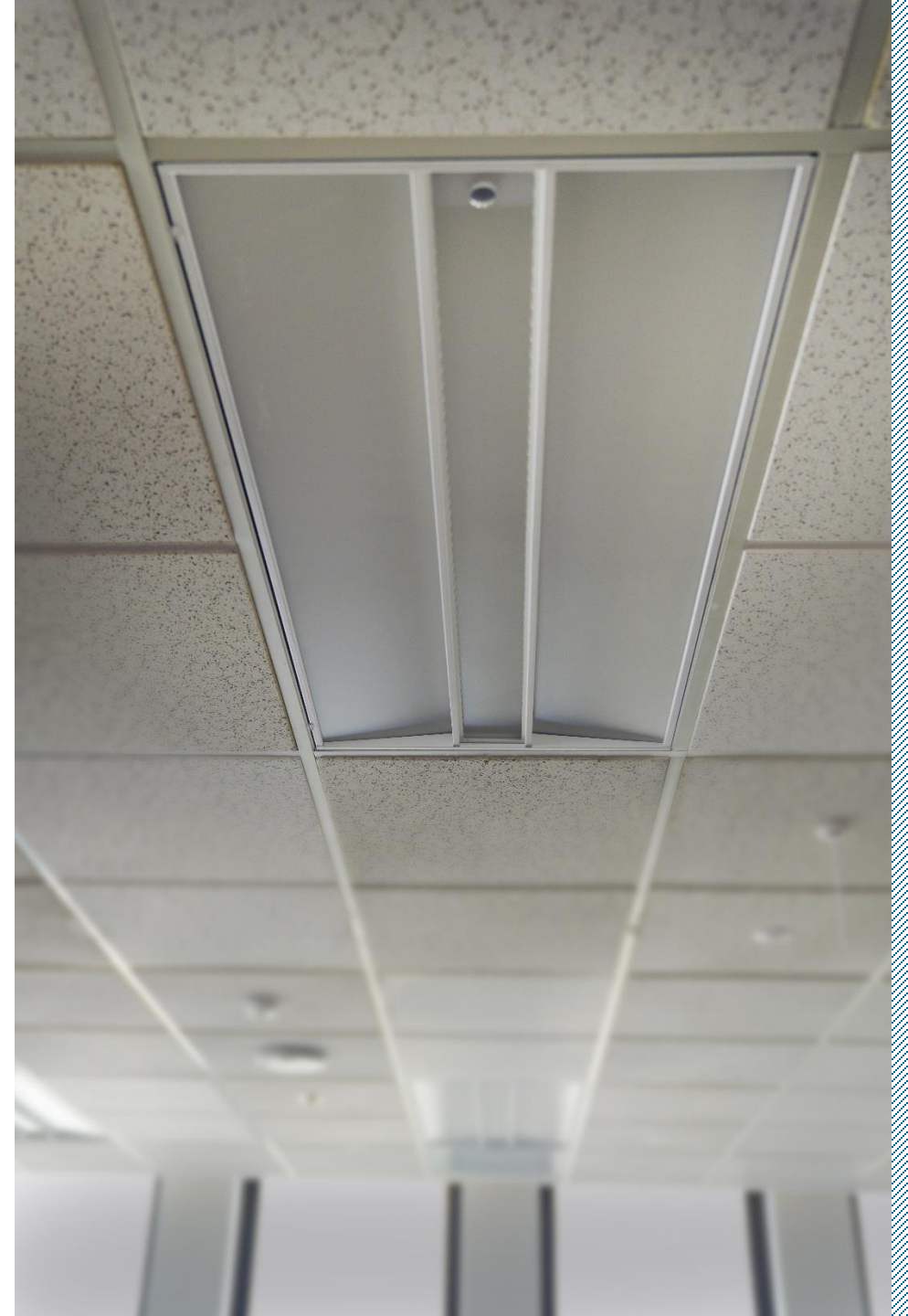
What Do We Mean by “Connected Buildings”

- Systems share data and respond dynamically
- Lighting, HVAC, and other systems are no longer siloed
- Decisions are based on real-time building conditions
- Goal: efficiency + comfort + flexibility



Refresher: What is LLLC?

- Fixtures with integrated sensors and controls
- Wireless communication between fixtures
- Features include:
 - Occupancy sensing
 - Daylight harvesting
 - Continuous dimming
 - Zoning without rewiring



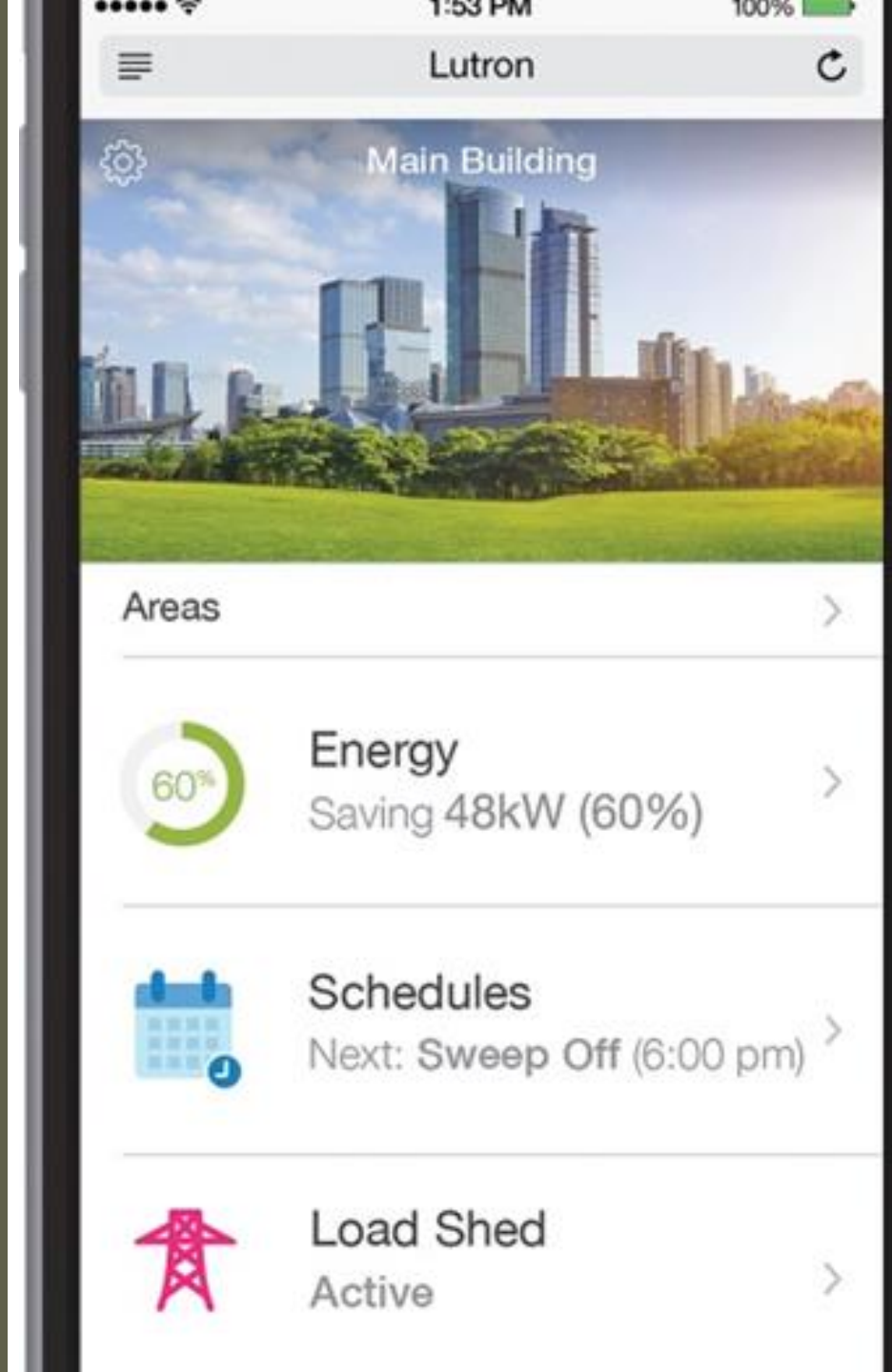


Lighting is the Right Place

- Lighting is everywhere in a building
- Already includes sensors and controls
- Provides space-level data
- Creates a “network” across the entire building

What Data Does LLC Already Provide

- Occupancy / vacancy patterns
- Time-of-use and schedules
- Daylight availability
- Space utilization trends



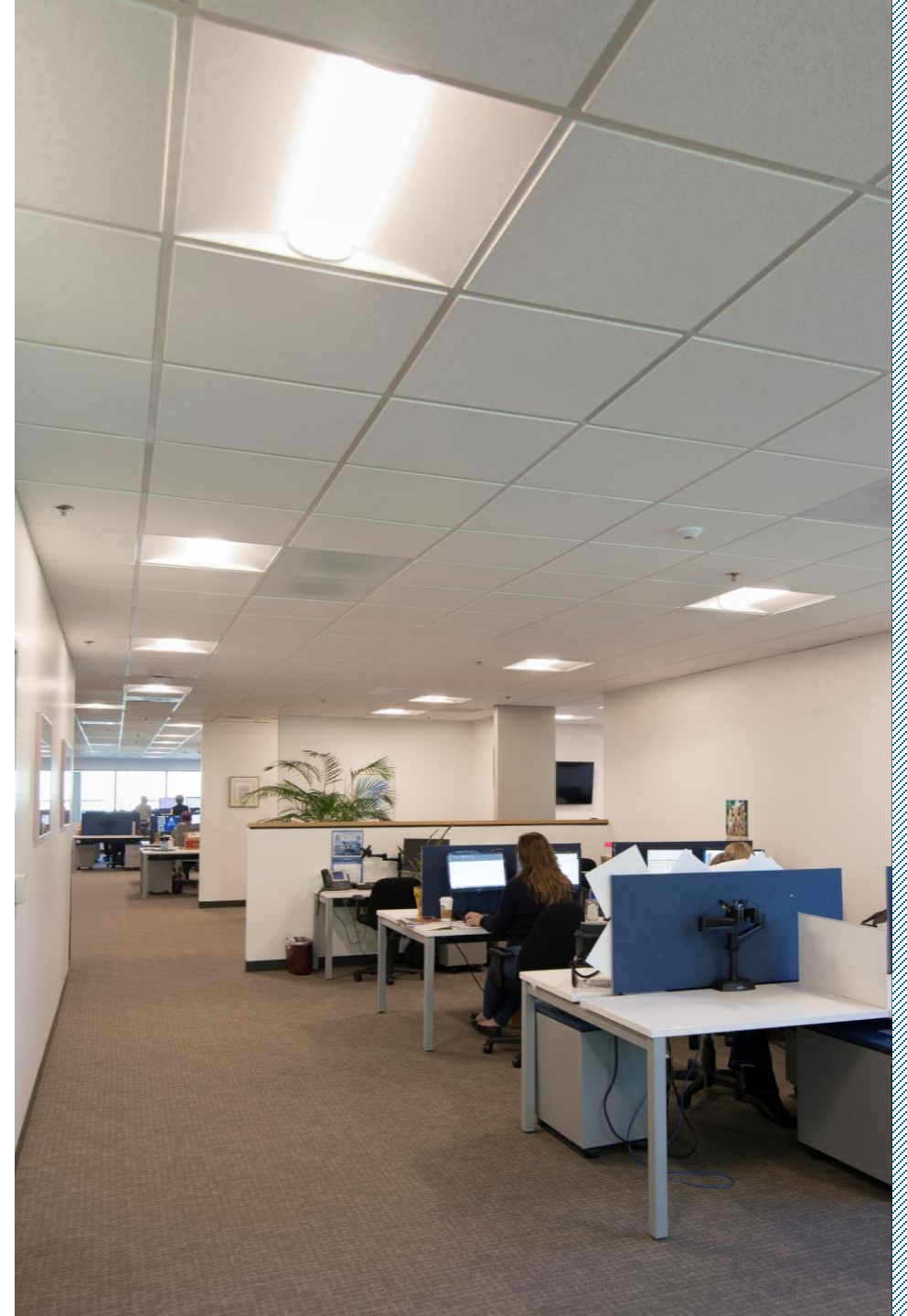


The Opportunity: Lighting + HVAC

- HVAC often operates on static schedules
- Lighting systems provide real-time occupancy
- Integration enables:
 - Demand-based ventilation
 - Smarter scheduling
 - Reduced runtime

Example: Occupancy Based HVAC

- Lights detect space is empty
- Signal sent to HVAC system
- HVAC reduces airflow or temperature conditioning
- Space returns to normal when occupied



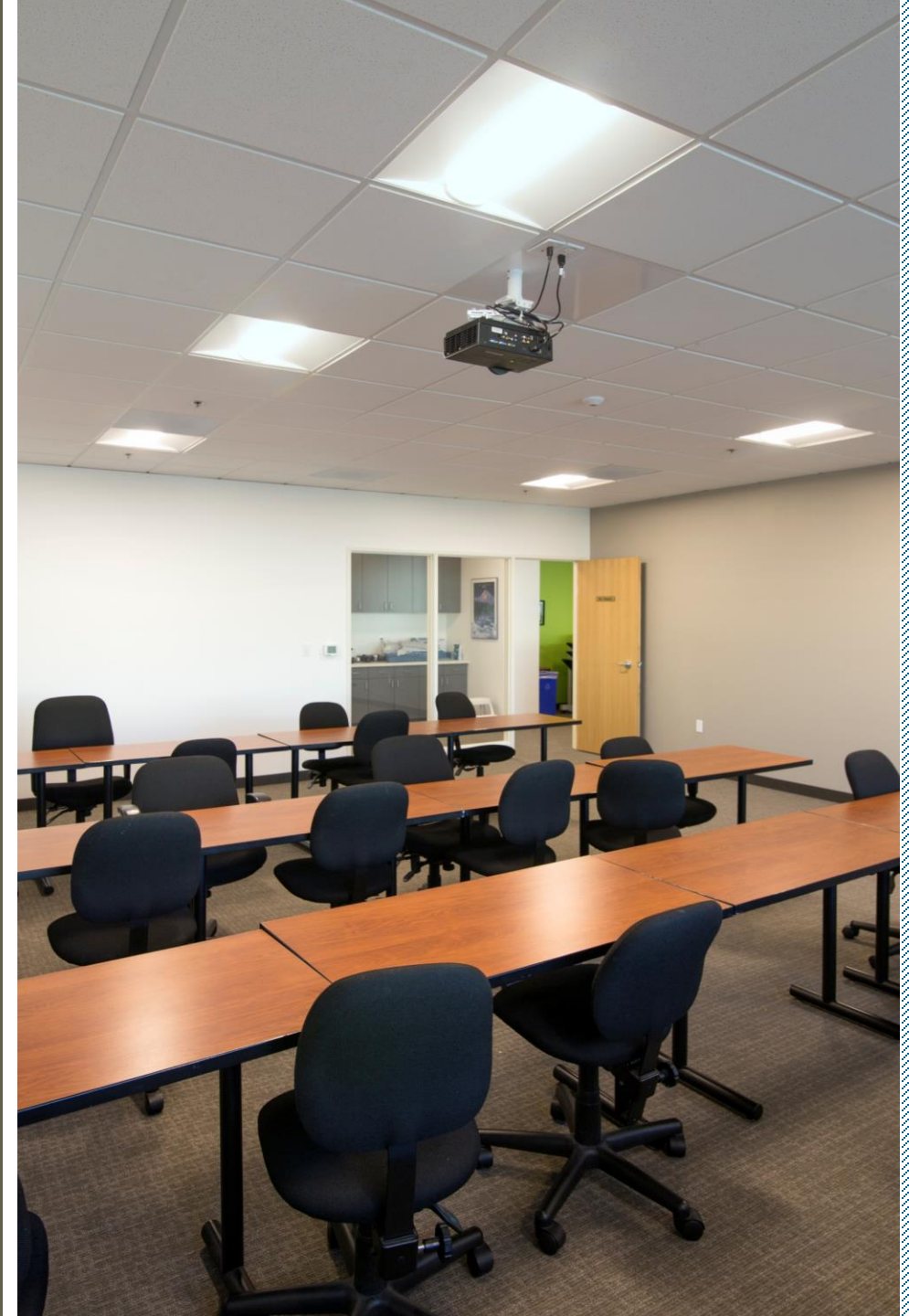


Example: Space Utilization Insights

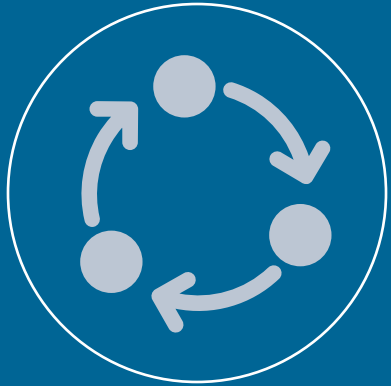
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What's Possible Today (Real Projects)

- Basic integration via:
 - BACnet gateways
 - API connections
- Lighting systems feeding occupancy to HVAC
- Cloud dashboards for visibility



What's Still Challenging



Systems not
always
designed to talk
to each other



Integration can
require
coordination
across trades



Lack of
standardization



Commissioning
complexity



Where Manufacturers Are Headed

More open
platforms and
APIs

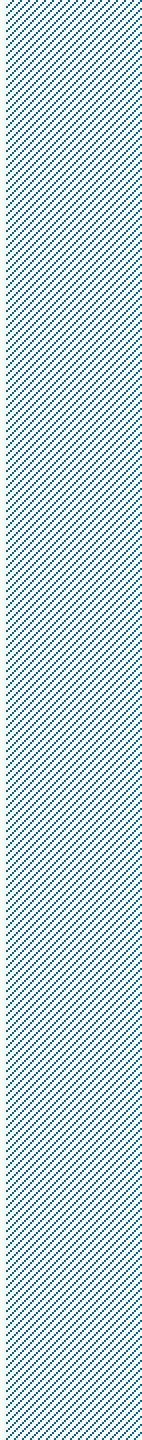
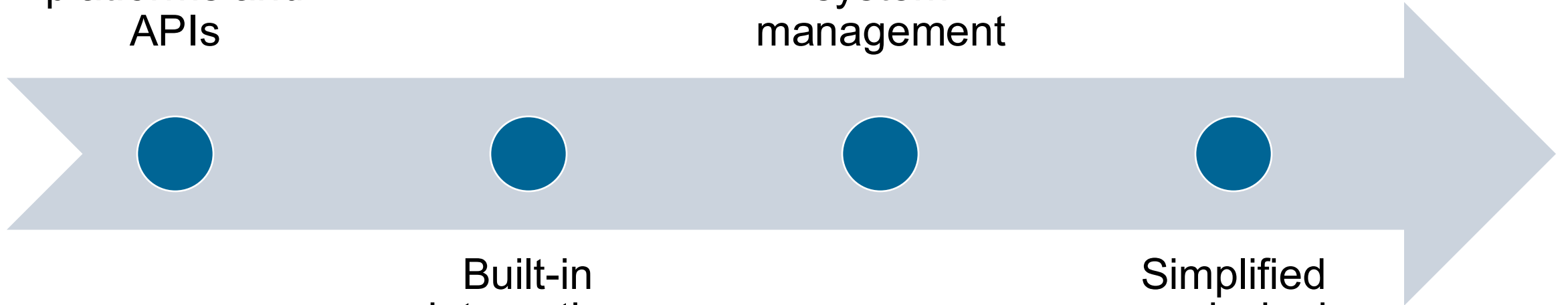


Cloud-based
system
management



Built-in
integration
capabilities

Simplified
commissioning
tools



Manufacturer Perspective
Amy Stacey, Regional Vice President - Autani



Opportunities for Trade Allies

- New project opportunities
- Higher-value projects
- Ability to differentiate
- Better long-term customer relationships

What to Think About Now

Start with
LLLC on
projects

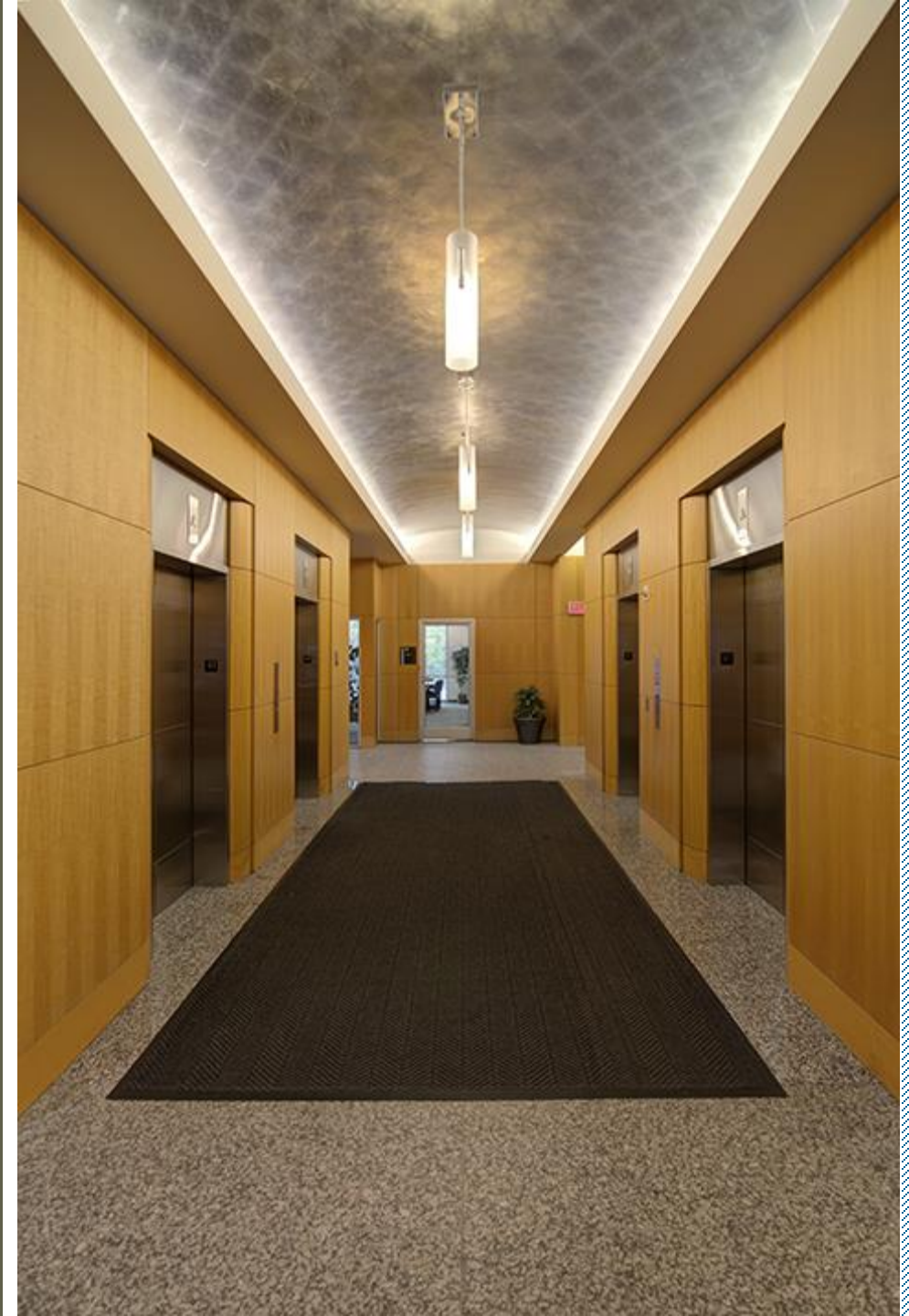
Ask about
HVAC
integration
early

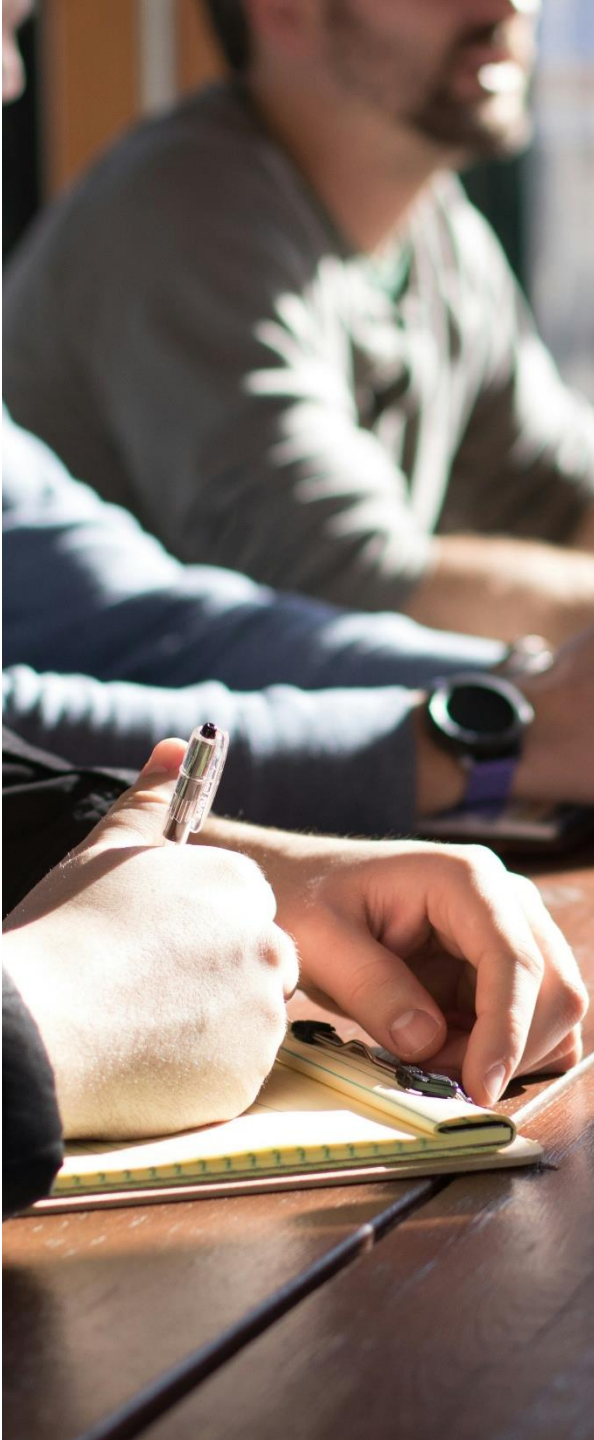
Coordinate
with
mechanical
teams

Understand
basic
integration
pathways

Energy + Operational Benefits

- Increased energy savings (lighting + HVAC)
- Improved occupant comfort
- Reduced maintenance and complaints
- Greater flexibility over time





What Building Owners Should Be Asking

- Can systems share data?
- Will this support future upgrades?
- What data will I have access to?
- How flexible is the system over time?

Resources

Industry Voices: BetterBricks.com

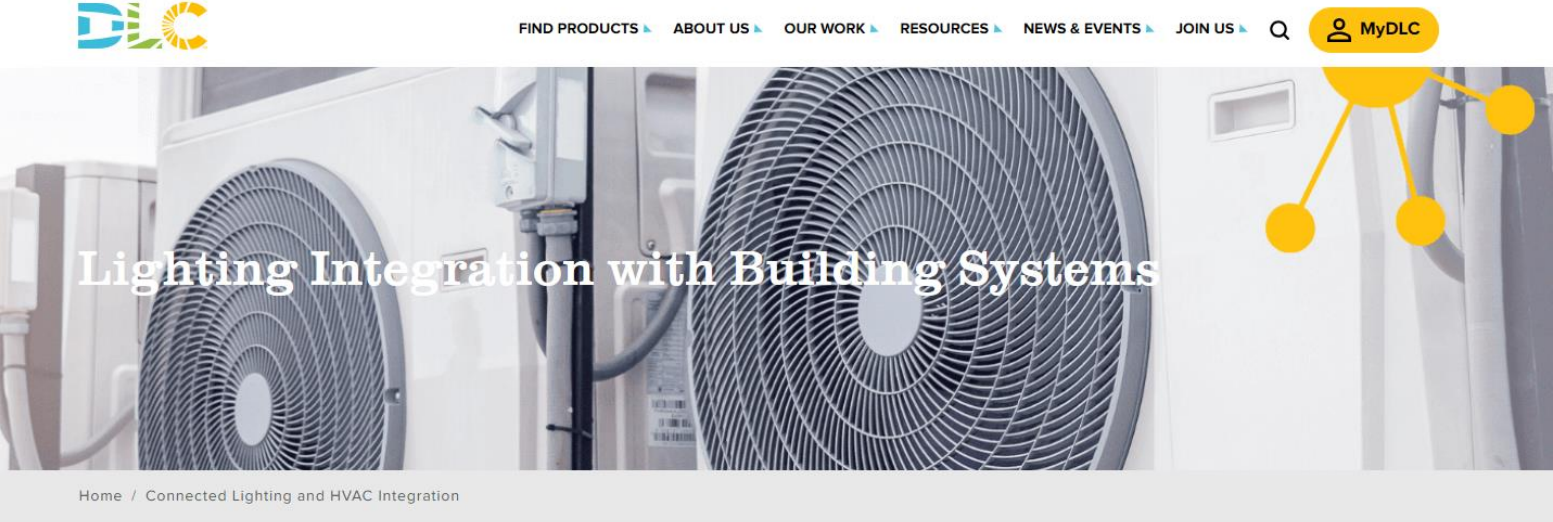
“LLLC has become the backbone of our operations because it supports the process of integration and provides end user data. We can even monitor scheduled maintenance, identifying potential issues with circuits, batteries, or other essential functions.

There are some facility professionals out there who are used to outdated technologies. The key for them is education—bridging the gap between the familiarity of the past and the possibilities of the future.”

Neil Schilling – North Coast Electric



Resources



[Infographic](#)

[Toolkit](#)

[Introduction to NLC-HVAC Integration Video](#)

[AHR Expo 2025](#)

[Additional Resources](#)

CONNECTED LIGHTING AND HVAC INTEGRATION

Connected Lighting and HVAC Integration

Looking for more energy savings? Integrating HVAC with lighting controls is the next level up for smart buildings. How does it work? Take a look at our infographic below.

If you are curious about saving energy in commercial buildings, download our free toolkit about HVAC and networked lighting control integration.

[DOWNLOAD NLC-HVAC INTEGRATION TOOLKIT](#)

designlights.org/lighting-hvac-integration

Key Takeaway's

LLLC is already creating a data-rich building network

Integration with HVAC is happening today

The market is moving toward connected systems

Trade Allies play a critical role

Questions?



Thank you

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