Retail Infrastructure Perspectives

Enabling a better shopper experience

LEVITON®

We build what's next to light, power, and connect everyday spaces.

THE FUTURE IS ON®

Retail Infrastructure Perspectives

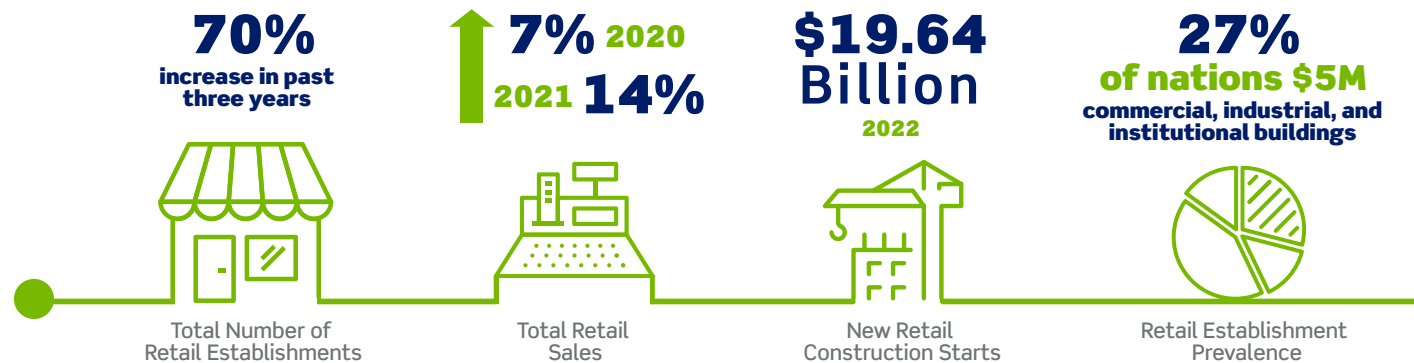## Enabling a better shopper experience

The retail industry has experienced various peaks and valleys in recent years. Retail operators are prioritizing the challenges of form vs. function, omni channel, multi-site scalability, buyer behavior, and sustainability.

| Form vs Function | Omni Channel | Multi-Site Scalability | Buyer Behavior | Sustainability |
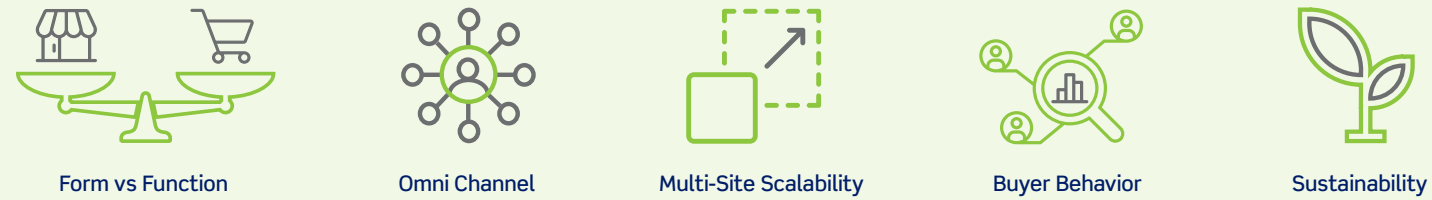
Adopting the latest controls, lighting, electrical and network solutions can help alleviate the above changing demands as well as enable the goals of retail facility, IT, and engineering stakeholders.

Form vs Function

Consumers expect a well curated, holistic design, and environment to guide their shopping experiences, whether it comes down to product display, store layout, lighting ambiance, sustainable features, and other technological advancements. Retail construction is faced with the demand of accommodating the consumer expectations specifically as it relates to store design, fixtures, convenience, and advanced technology. **Retailers recognize the importance of controlled lighting, power availability, and network performance as key enablers to improve the customer experience.**

70%
increase in past three years
Total Number of Retail Establishments

7% 2020
2021 14%
Total Retail Sales

$19.64 Billion
2022
New Retail Construction Starts

27%
of nations $5M
commercial, industrial, and institutional buildings
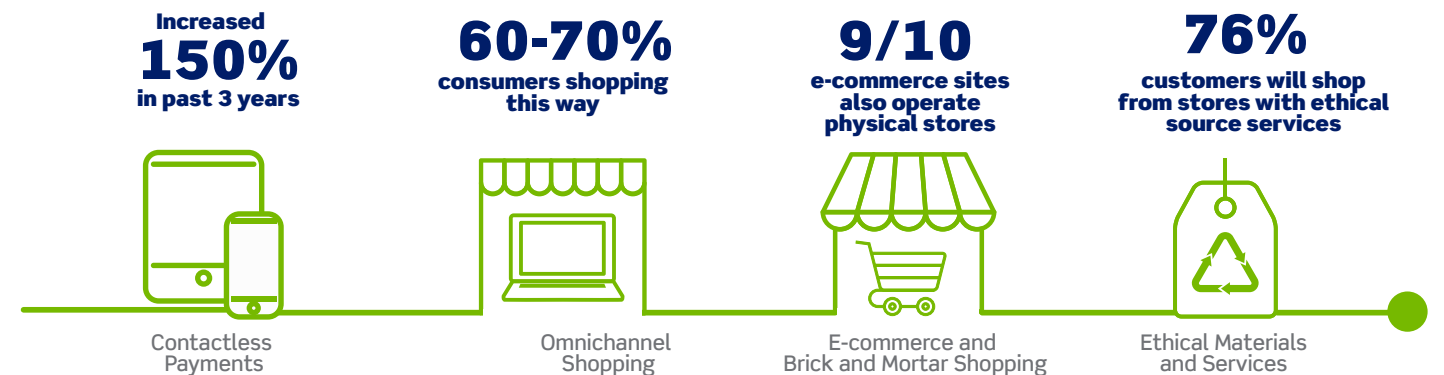Retail Establishment Prevalence

Omni Channel

One of the most prominent trends in retail is the need for omni channel (physical and virtual) options with seamless connection between the various shopping experiences. Consumers are now empowered to shop in a way that fits their lifestyle — with convenient online tools in addition to providing a seamless in-store and curbside experience. **As retailers merge the capabilities of both cloud and on-premise systems, there is an opportunity to increase traffic with enhanced store network connectivity and data center performance.**

Multi-Site Scalability

Despite the shift to digital shopping formats, franchise, chain, and big box retail companies are continuing to open more brick-and-mortar locations. Conversely, brands that previously only operated online are beginning to add physical stores. System standardization and repeatable technology in multi-site retail portfolios are critical to ensure facility managers can effectively operate, maintain, and support numerous locations. **Managing the need to scale and standardize while keeping in mind the current state of the supply chain, retailers are looking to ensure that their networking and controls have strong, reliable, and secure bandwidth, while remaining user friendly and intuitive.**

Buyer Behavior

When a consumer walks into a store, they have a certain expectation that the store must match, while also promoting the profitable "best sellers." Understanding audience preference, ease of navigation, occupancy levels, brand experience, usable space, lighting levels, and product flow can offer increased store profitability. Retail store operators and fit-out companies collaborate with lighting designers to create a balanced lighting scheme catering to ambiance, product spotlighting, guidance, engagement, and consumer safety. In addition, retailers are utilizing heat mapping, occupancy sensing, and other critical data to predict outcomes, discover new trends, and make profitable business decisions. **To fully monetize buyer behavior, it is critical to consider a custom prepared lighting package, coupled with well-designed network architecture.**

Increased
150%
in past 3 years
Contactless Payments

60-70%
consumers shopping this way
Omnichannel Shopping

9/10
e-commerce sites also operate physical stores
E-commerce and Brick and Mortar Shopping

76%
customers will shop from stores with ethical source services
Ethical Materials and Services

Sustainability

Retailers tend to be at an intermediate stage of ESG maturity and are now tackling sustainability with examples of lowering carbon footprint, sourcing and creating apparel materials, developing refillable packaging, or finding ways to effectively reduce, reuse, and recycle. Areas like lighting and heating, ventilation and air conditioning (HVAC) present numerous opportunities for retailers to reduce their energy usage, allowing stores to save money on their utility bills, provide a more welcoming environment for customers, and improve the visual appeal of their own products. In-store metering, IoT based control devices, replacing older, inefficient light bulbs with more modern alternatives, and employing remote access tools to manage building controls are examples that retailers are adopting. **Retailers and shop fit-out companies are consciously selecting contractors and manufacturers that represent solutions to improve sustainability objectives.**

Information Sources

NRF National Retail Federation | Raydiant | TRUELOOK | RCA Retail Contractors Association | ELECTRICAL CONTRACTOR | global web index | NFCW.

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While the retail industry navigates the challenges outlined previously, they must find solutions that match the issues they face. Controls, Lighting, Electrical, and Network Infrastructure all have varying abilities to satisfy at least one of the retail challenges related to brand standards, integration, sustainability, connectivity, and compliance, as reflected in the below chart.

Enabling Retail Goals with Controls, Lighting, Electrical, and Network Infrastructure.

Solution	Form vs Function	Omni channel	Multi-Site Scalability	Buyer Behavior	Sustainability
Controls	Less Relevant	Less Relevant	Very Relevant	Relevant	Very Relevant
Lighting	Very Relevant	Less Relevant	Very Relevant	Very Relevant	Very Relevant
Electrical	Very Relevant	Less Relevant	Relevant	Very Relevant	Very Relevant
Network	Very Relevant	Relevant	Very Relevant	Relevant	Very Relevant

● Very Relevant　● Relevant　● Less Relevant

Retail Control Solutions

Leviton Control Solutions bring innovative design and features to retail establishments through specific products like distributed, daylighting, wireless controls, dimmers, occupancy/vacancy sensors, relay panels, and timer switches. These controls products provide precise, dependable control while offering the potential for significant energy savings.

Retail Electrical Solutions

Leviton Electrical Solutions offer safe and reliable management of electrical loads through various electrical wiring devices that are designed to withstand the rigors and code requirements of various environments.

Retail Lighting Solutions

Leviton Lighting Solutions bring a variety of options to illuminate the variety of spaces in retail locations. Leviton offers a spec-ready and code compliant lighting solutions for every space in a retail setting.

Retail Network Solutions

Leviton Network Solutions supports retailers around the globe with a selection of high performance network infrastructure products and systems. End-to-end performance ensures users are connected, engaged, and empowered while shopping or dining, wherever they're at in the retail facility experience.

Controls, Lighting, Electrical and Network Application Benefits

Retail Space	Controlled Lighting	Electrical	Network
ENTRANCES	Promotes branding and helps to begin the aesthetic experience of the interior of the store while highlighting window signage and display and providing security lighting for non-operation times.	Accommodating needs for temporary, weather resistant power for external equipment. Provide customers with energy efficient and third-party certified electric vehicle charging amenities.	Opportunity for entry point occupancy tracking and video surveillance. Ensures digital signage continuously operates without disruption.
PERIMETER LAYOUT	Use of perimeter lighting to showcase merchandise with optimized and targeted lighting. Employ evenly distributed illumination for vertical displays and tape lighting to emphasize product.	High availability of appropriate power enabling versatility for evolving, seasonal and motorized product display configuration. Opportunity to offer shoppers USB device charging access points.	Gives customers options to efficiently utilize mobile device for item lookup, couponing, and self-scanning. Digital signage offers electronic menu boards, vendor advertising and in-store promotions.
FLOOR DISPLAYS	Adopt suspended, pendant, and recessed decorative lighting to draw focus on island and end-cap displays, that also enable a guided and well-lit customer path.	Provision of durable distributed floor mounted power and additional ceiling electrical outlets to support island and end-cap demonstrations and facility maintenance.	Customer engagement using free standing kiosks, augmented reality, heat-mapping sensors for traffic flow and location-based marketing.
BACK OFFICES	Ensures a well-lit and sufficient task-based lighting environment for productive administrative work, processing returns, shipments, and inventory management. Controls store zones for energy optimization.	Availability of adequate power to support office equipment, appliances, and work devices while considering the ability to control, sense, schedule the environment for productivity.	Enables fixed and remote desk-based network availability for both permanent and visiting vendors to support back of house requirements and retail administration functions.
CHECK OUT/POS LIGHTING	Guides shoppers to POS locations and assists in checkout process while increasing likelihood for impulse purchasing. Also considered to help manage loss prevention with high visibility areas.	Uninterrupted power required for POS equipment such cash registers, card readers, and scanners. Additional USB charging for retail tablet and handheld terminals.	Ensures seamless check-out with customer connectivity to aid retail transactions. Mitigate loss prevention with ip-enabled applications like bottom of basket detection.
COOLED SPACES	Control over scheduled, and timed lighting for light sensitive products, and heated lighting for temperature control.	Power appliances and accompanying settings (i.e air conditioning, misting controls).	Network connected operating system for controlling appliances related to temperature dependent products.
RESTROOMS	Promote cleanliness of space with accent lighting above the stalls and sink to create gentle ambient lighting outcome. Occupancy sensors assist in energy efficiency and humidity control.	Powering appliances and fixtures and hand dryers, occupancy, and plug-in diffusers. Ensure GFCI protection electrical outlets and patrons' due water-based exposure.	Extension of network connectivity to support sensor-based automation of washroom consumables, digital signage, and in-room audio applications.
STOREROOMS	Adequate LED lighting helps safety and security preventing workplace accidents while enhancing the way goods are received, stored, and shipped. Task-based lighting aids inventory management activity.	Electrical services to support the administration of merchandise receiving and staging. Adequate power for scanning, order entry, lifting, weighing, and repackaging tools.	Available connectivity to enable real-time inventory management, expediting, and on-line order processing. Enhance security with network-based video surveillance and access control.
SHARED AMENITIES	Provision of emergency lighting, exit signs in public spaces for safe evacuation. Use of sustainable, general-purpose lighting in common areas, walkways, and parking lots.	Use submetering solutions to capture true utility usage and transparently allocate those expenses to each tenant. Provides accurate and real-time information to assist with energy reduction.	Common and shared network services to support public Wi-Fi, physical security, digital signage, wayfinding, and connected vending machines.

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Enhance shopper and diner environments for an efficient, easy and stress-free experience
- Promotes welcoming and safe environments
- Builds brand loyalty and repeat business
- Balances shopper and diner experience and space functionality/efficiency
- Creates a conducive space for shoppers to find what they need easily

The following visualization suggests typical products and solutions that may be found relevant to each space.

Visioneering ClearForm

Provolt Room Controller

Smart Wallbox Sensor

Visioneering LEL

Multi-Tech Ceiling Mount Sensor
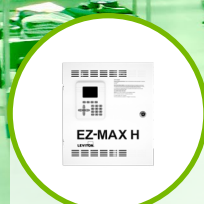
EZ-MAX H

Intense MX Recessed Multiples

Sapphire Touch Screen

ConTech Architectural Performance Strip Lighting

ConTech CPL Performance Pendants

Intense LC Downlights

Sensing Controls

ConTech Vintage RLM

ConTech Eclipse Curve Track Luminaires
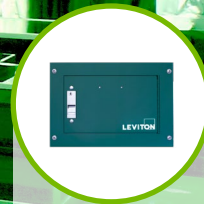
TLLP

Intense V-Rail

Smart Fixture Mount Sensor

GreenMAX DRC

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Lev-Lok Modular Devices

SST Cat 6A Cable

ATLAS-X1™ Cat 6A Jacks

Antimicrobial Wallplates

Secure RJ Patch Cords

Decora Plus Switches

Floorboxes
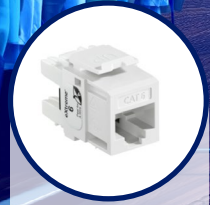
EXTREME™ Cat 6A Jacks

QUICKPORT™ Surface Mount Boxes
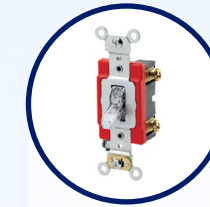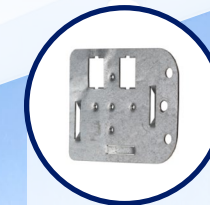
Illuminated Switches

Plugs & Connectors

Pre-Wired Floorboxes

Heavy Duty Tamper Resistant Receptacles

DURAPORT™ Connectors and Patch Cords

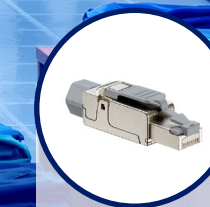QUICKPORT™ In-Ceiling Bracket

VXC™ Coupler

Weatherproof Covers (for external stores)

Key Locking Switches

AV Connectors

Cat 6A Universal Plug

Power Pedestals

EV Chargers

The DNA of Successful Deployment and Remediation

Leverage partners to meet organizational objectives, on-time and under budget

● Retail Stakeholders   ● Leviton

PHASE 1

Facility Needs Assessment

Discuss what is needed to best optimize and maintain the physical condition and value of facility, develop capital budgets, and prioritize resources.

● Define use cases that meet organizational objectives.

Leviton Partner

Catalyst

● Understand objectives to advise possibilities and practical considerations.

PHASE 2

Pre-Construction and Design Phase

Review, revise, and expand schematic plans and elevations to incorporate all the details and specifications required for construction.

● Operationalize requirements through programmatic and design development.

● Advocate design and specifications with practical solutions to meet use case goals.

PHASE 3

Procurement Phase

Plan and acquire goods and services needed for construction, while considering timeline, quality of project, and budget.

● Establish engineering efforts that leverage maximum acquired value of equipment, material, and construction services.

● Ensure integrity of design and construction intent are met during procurement with solutions that exceed requirements.

PHASE 4

Construction Phase

Architect, engineers, and project manager to perform quality control inspections, respond to Requests for Information (RFIs) and review and approve technical submittals.

● Realize benefits of planning that results in effective implementation, quality assurance, approvals, tracking of deviations, and guaranteed delivery of contractor requirements.

● Generate engineering submittals and solutions for vertically integrated supply chain.

Solve Organizational Challenges
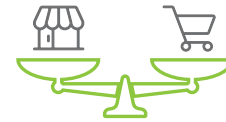
Form vs Function

Omni Channel

Multi-Site Scalability

Buyer Behavior

Sustainability

PHASE 5

Facility Operation

Following the conclusion of a project, continuously track and monitor efficiency of day-to-day operations to ensure needs are being met.

● Maximize facility uptime and minimize operational costs.

● Ensure upgrade path and product life cycle outpaces emerging demands.

PHASE 6

Repairs and Maintenance

Continuously address and minimize need for repairs through preventative maintenance and strategic planning; use a thorough approach to repairs when needed, keeping a long-term building perspective in mind.

● Reduce capital expenditure related to maintenance and repair.

● Solutions that achieve predictive maintenance and operational efficiency goals, with life cycles that outlast their design intent.

PHASE 7

Annual Needs Assessment

On a yearly basis, ensure teams are routinely communicating and monitoring for potential facility needs and repair priorities.

● Cyclical assessment and revision of organization goals and objectives.

● Act as a trusted advisor of compliance with new codes, standards, and emerging technologies in order to enhance infrastructure to proactively address evolving operational requirements.

Successful partnerships with solution experts meshed with relevant project life cycle roadmaps can ensure successful remediation and deployment that further translate into positive organizational growth and operations.
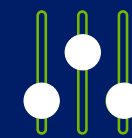
CONTROLS   LIGHTING   ELECTRICAL   NETWORK

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