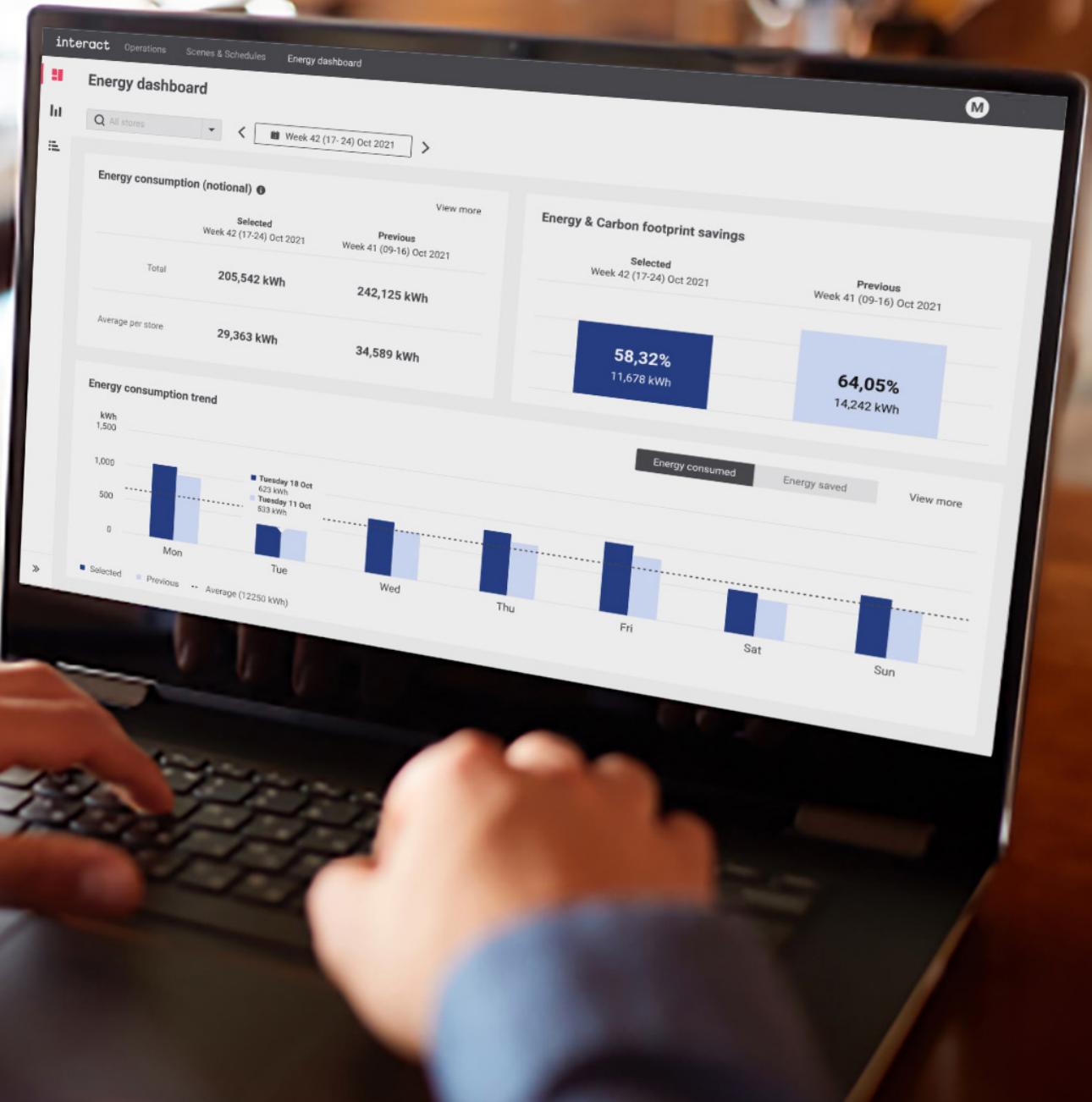


interact



Multisite System Manager

Remotely run your sites to drive energy efficiency and sustainability

Software Features & Integrations

Find out more about Interact

www.interact-lighting.com



Real-time visibility & control

05



Scenes & schedules

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Energy monitoring

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Services

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Optional - Remote Operations

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Integrations & APIs

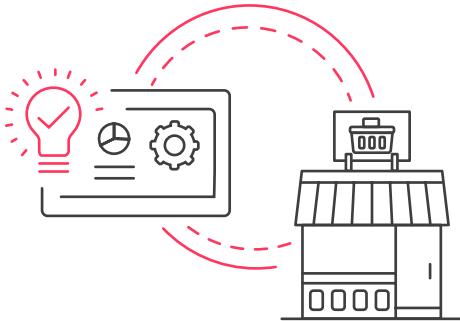
17



Complete System Security

19

Effectively monitor and manage the lighting of all your sites

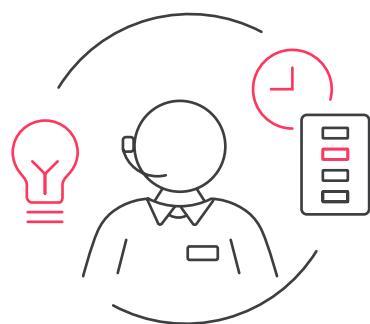
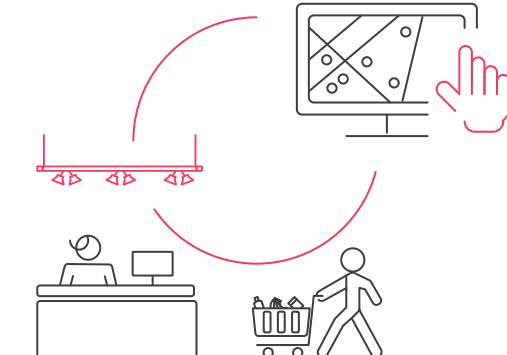


Optimize energy consumption

- Define automated schedules and dimming scenes that run your sites more energy efficiently and sustainably.
- Measure the effects with the energy dashboard and drive continuous improvement.
- Utilize daylight sensors and occupancy sensors to adjust lighting levels automatically ensuring optimal energy usage at all times.

Enhance space and experiences

- Drive traffic, conversion and loyalty with impactful ambiance and superior light at the right time and place.
- Easily deploy new settings to large groups of sites.
- Ensure a consistent brand image.



Strengthen operational excellence

- Monitor and manage your sites remotely from a single central dashboard.
- Gain clear insights in the operational status of your sites without the hassle of site visits.
- Simplify mandatory tests of emergency lighting.

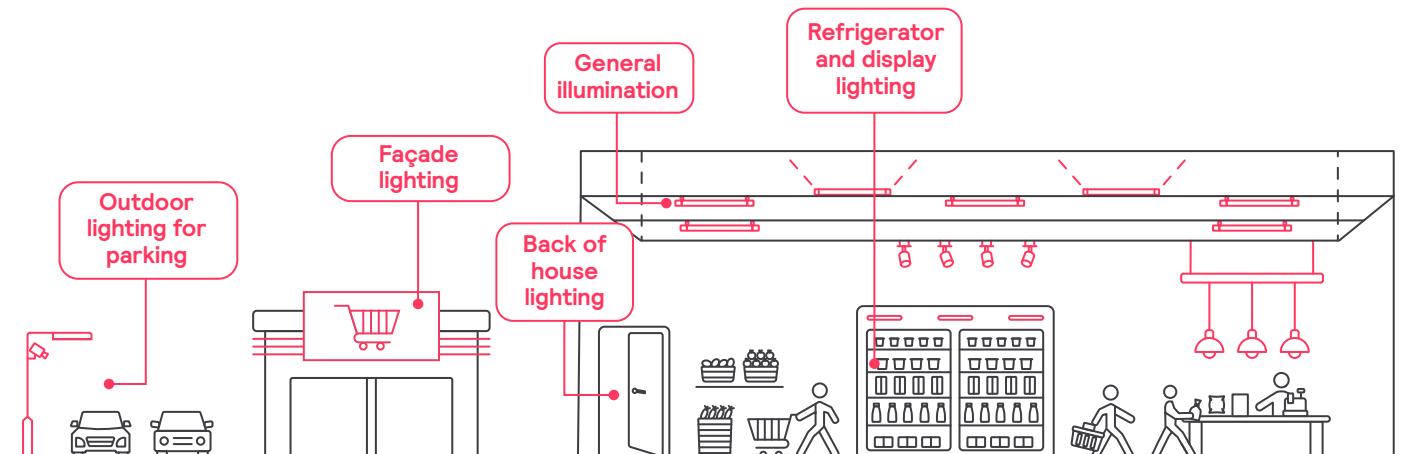
Tailored to support your business



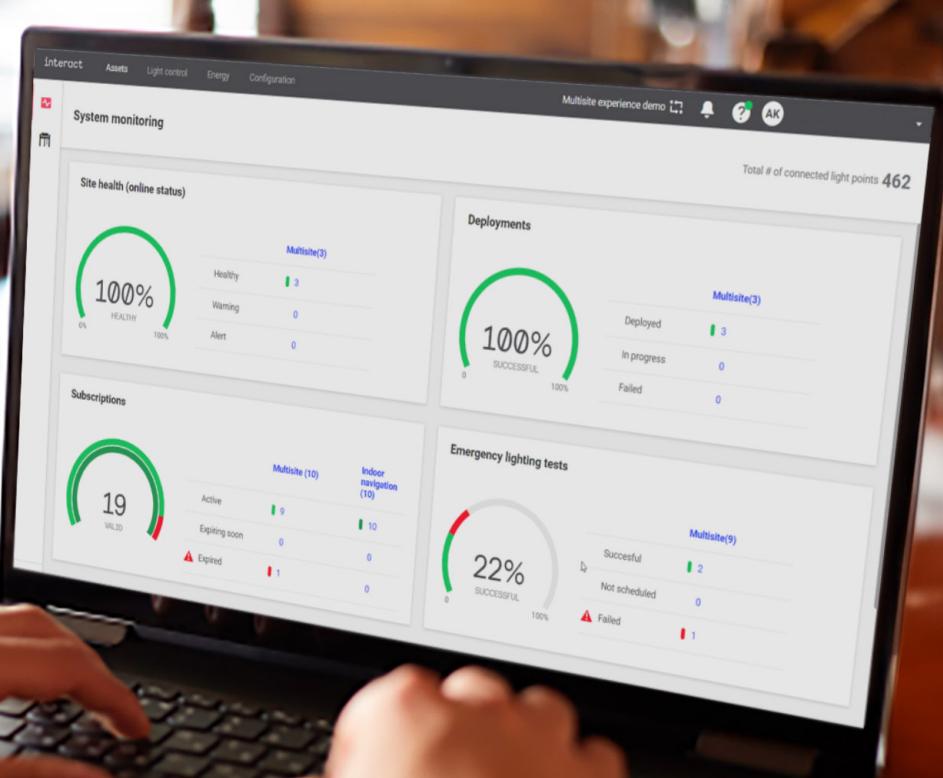
Suits all store formats...

- **Convenience:** Smaller local stores and express formats.
- **Supermarket:** Larger supermarket and DIY retails.
- **Hypermarket:** Very large out of town and department stores
- **Distribution centers:** warehouses and dislocated pick-up points

... and all control areas



Centralized control and local override



Monitor and manage lighting remotely across all sites in a single, unified view

Multisite dashboard

Our intuitive dashboard makes it easy to create versatile and attractive retail spaces, and allows you to manage, monitor and adjust the lighting remotely over all sites.



At your glanceable dashboard, you will gain insight in energy consumption patterns of your store lighting, and energy savings of a site for a selected period.



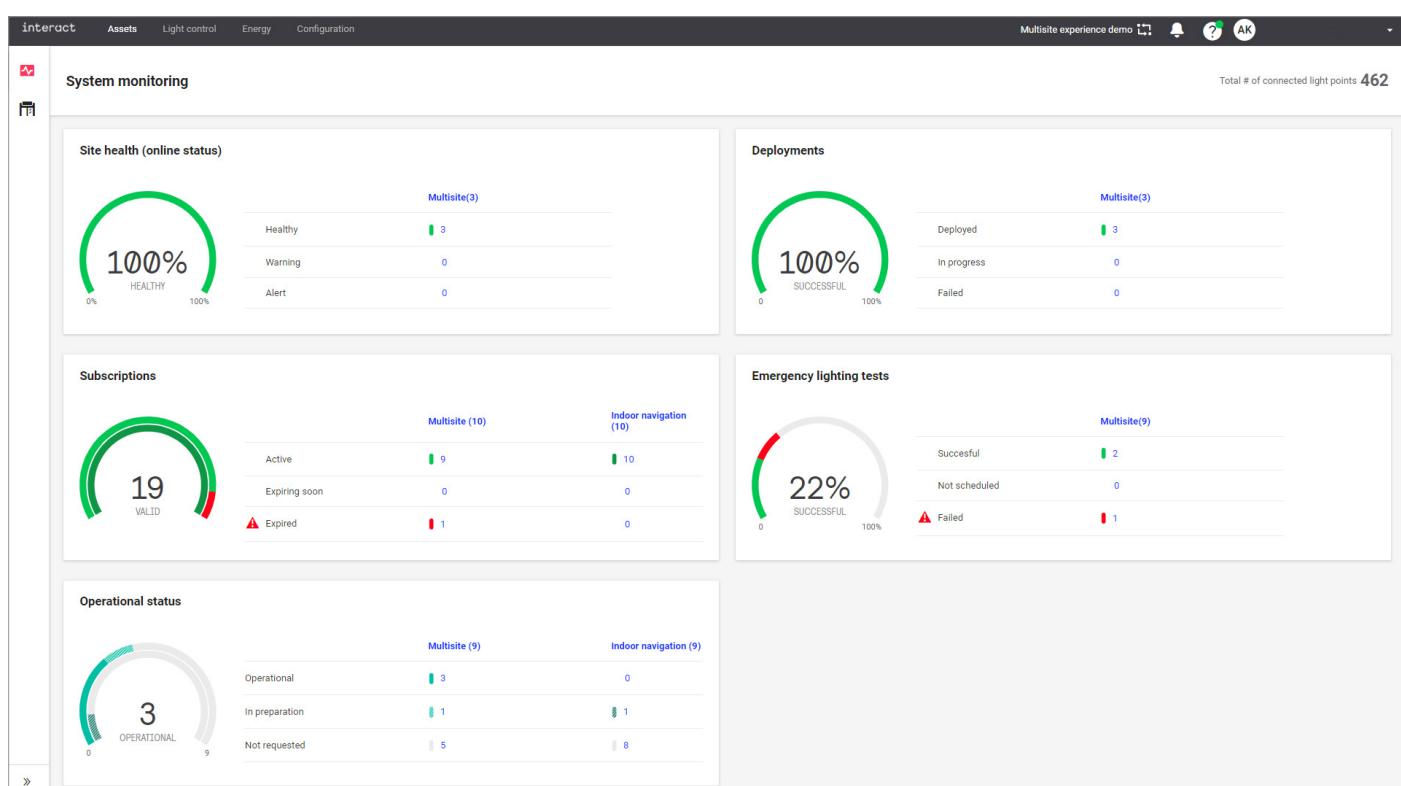
Use your dashboard to analyze the energy consumption of your stores, to define optimized lighting schedules and dimming settings and deploy these to all your stores in one go.





Asset overview

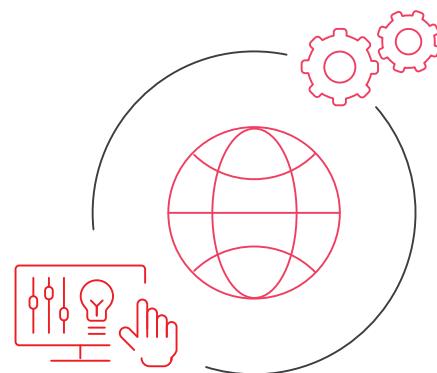
- Single dashboard showing system health
- See all your site in one overview
- Toggle between list view and detailed site view
- Includes the status of licenses and subscriptions
- Know which sites are fully operational or upcoming
- Monitor live which scenes are running on every site
- Successful updates of light configurations

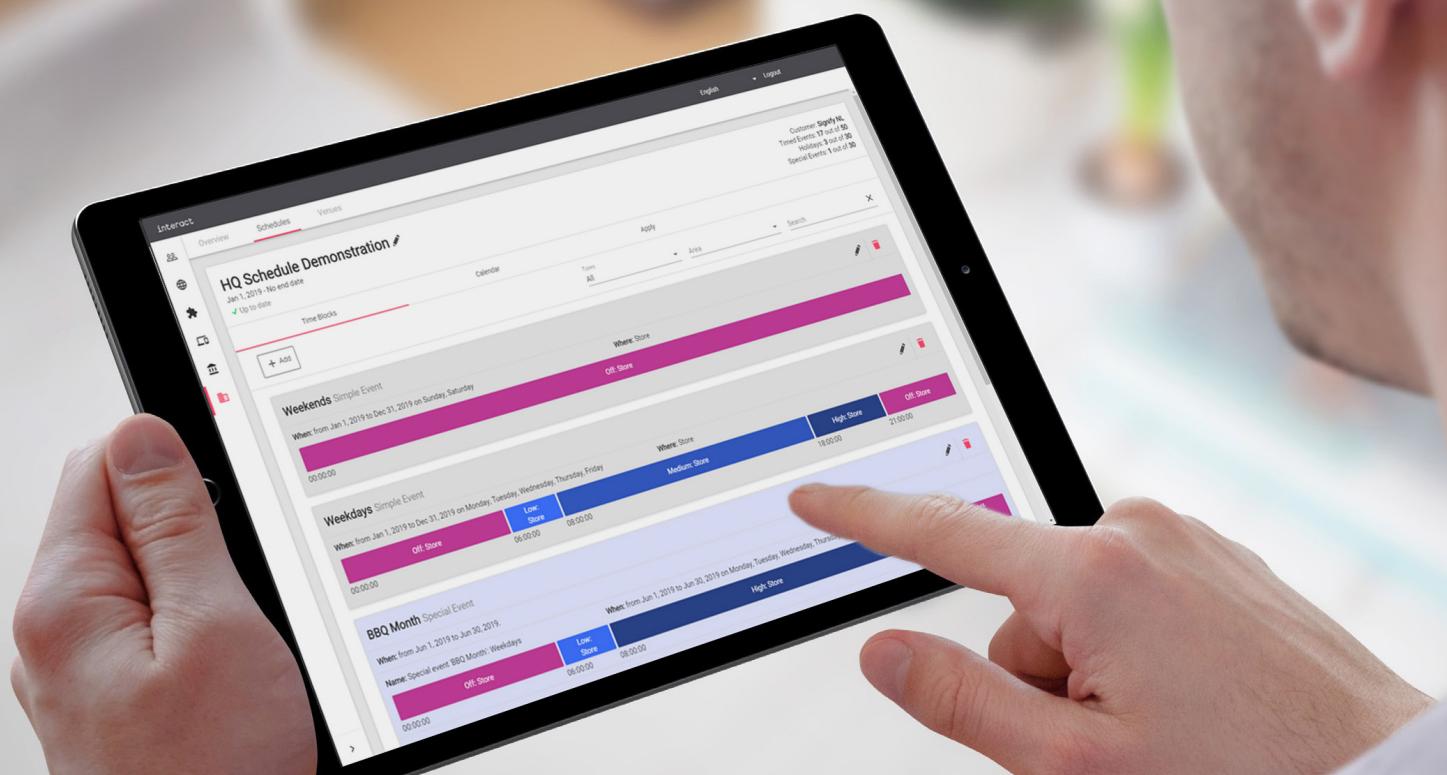


Multilanguage support

Secure user authentication, profile-based management and multi-language support:

- Danish
- German
- Portuguese
- Dutch
- Italian
- Russian
- English
- Japanese
- Spanish
- French
- Polish





Achieve reliable energy savings and enhance customer experience

Through a single intuitive dashboard, Multisite makes it easy to create stunning and flexible retail spaces. You can monitor and control the lighting remotely over all sites by adjusting centralized scheduling and scene settings for extra energy savings.

Simply adjust the lighting to your needs within the same day and deploy to any number of sites, for example when the opening hours change.

Save site visits through remote lighting adjustments. Create seasonal schedules and save additional energy by dimming during winter when it gets dark earlier.

Help reducing operational expenses based on meaningful insights of your energy consumption and meet your sustainability targets too.





The screenshot shows the 'Light control' and 'Configuration' sections of the interact software. At the top, there are buttons for 'All on', 'Trading', 'Stocking', 'All off', 'Cleaning', 'Store closed', 'Eco trading', and 'Save changes'. A 'Master slider' is present with a 'Copy dim levels' button. The 'Bakery' section contains sliders for 'Bakery spots' (50%), 'Bakery downlights' (70%), 'Bakery linear' (50%), 'Pastel uplight left' (40%), and 'Pastel uplight right' (50%). The 'Fresh food' section contains sliders for 'Fruit' (70%) and 'Vegetables' (70%). A 'Pastel uplight left' slider is also shown at the bottom.

Scene adjustment

- Remotely adjust light levels to your needs
- Live validation to preview the changes on an actual site
- Zoning
- Day/night mode to support the astronomical clock feature
- Adjust fade time

Intuitive user interface

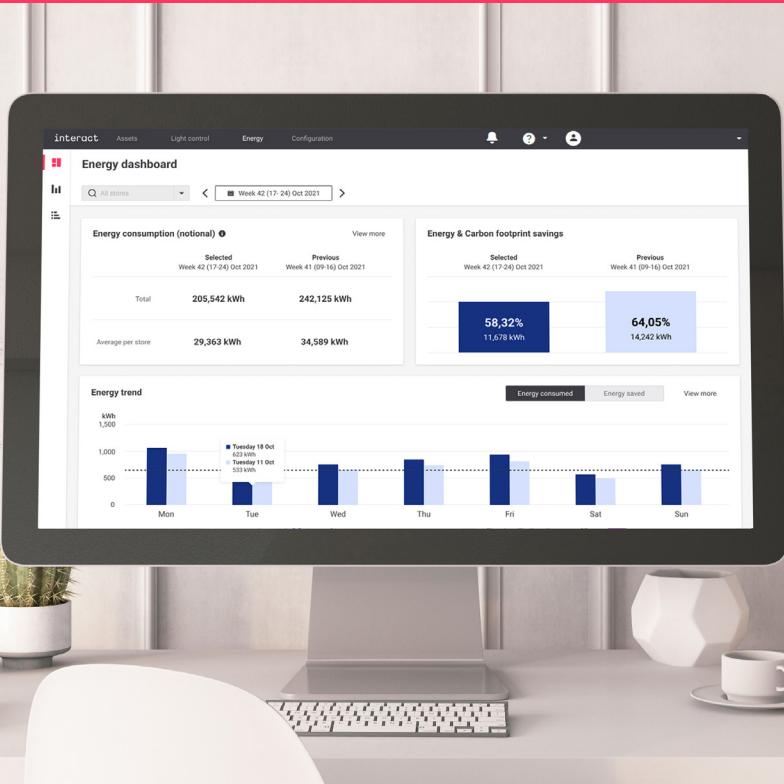
- Adapt light settings the same day for any number of connected sites
- **What:** Define light levels and scenes, piloting on site possible
- **When:** Define 24h schedules and calendar
- **Where:** Define what to apply where
- Master dim slider per scene for quick adjustments
- Convenient copy and clone functions



Schedule adjustment

- Intuitive wizard that helps with schedule creation and calendar adjustments
- Guided steps to deploy your adjustments to all sites or the correct subset of your sites (batch updates)
- Zoom in to view individual stores: see what is running & upcoming scenes

The screenshot shows the 'Schedules' tab of the interact software. It displays three schedule entries: 'HQ Schedule Demonstration' (Simple Event, Jan 1, 2019 to Dec 31, 2019, Off: Store, Low: Store, Medium: Store, High: Store), 'Weekdays' (Simple Event, Mon-Fri, Off: Store, Low: Store, Medium: Store, High: Store), and 'BBQ Month' (Special Event, Jun 1, 2019 to Jun 30, 2019, Off: Store, Low: Store, High: Store). The interface includes a calendar, time blocks, and a search function.



Make informed decisions with rich energy monitoring

Gain insight in energy consumption patterns of your connected sites and implement best practices. At your glanceable dashboard, you will get a quick overview of the energy consumption and energy savings of one or all sites for a selected period.

- Evaluate the savings with the intuitive weekly and monthly comparisons.
- You can easily sort and rank all the sites in your portfolio using the site list.
- Identify outliers and thereby bringing the quick wins to your fingertips.

The energy dashboard visualizes both notional as well as metered energy data. Understanding energy consumption patterns helps you to optimize savings to maximize the benefits of your lighting refurbishment.



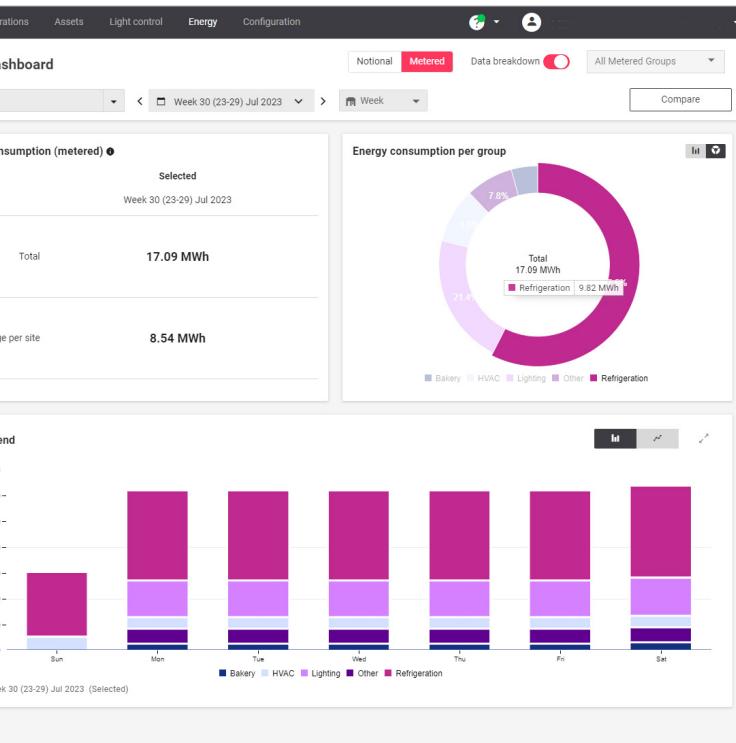
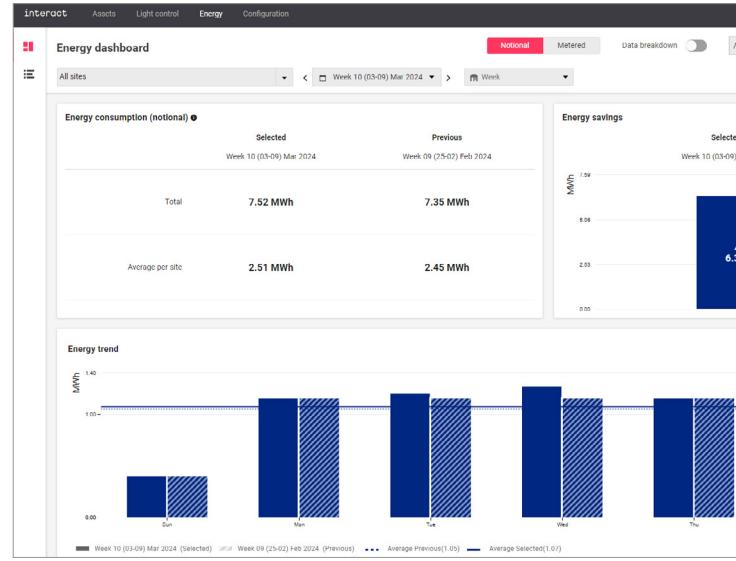


Energy dashboard for notional energy

The energy dashboard provides insights in the energy consumption and savings of the lighting of all your sites. It shows you the most relevant parameters, including:

- Energy consumption and savings
- Split: Dim savings and On/Off savings
- Historical energy trend compared with the previous period

On the dashboard, it's easy to select a more detailed notional energy trend, as well as a site list showing a ranking of all the sites in your portfolio.



Energy dashboard for metered energy

By adding smart meters, the energy dashboard allows you to monitor multiple power zones, also beyond lighting. Understand patterns in energy consumption for different groups, like lighting, refrigeration, bakery and HVAC.

The dashboard provides insights in the energy consumption of all metered groups:

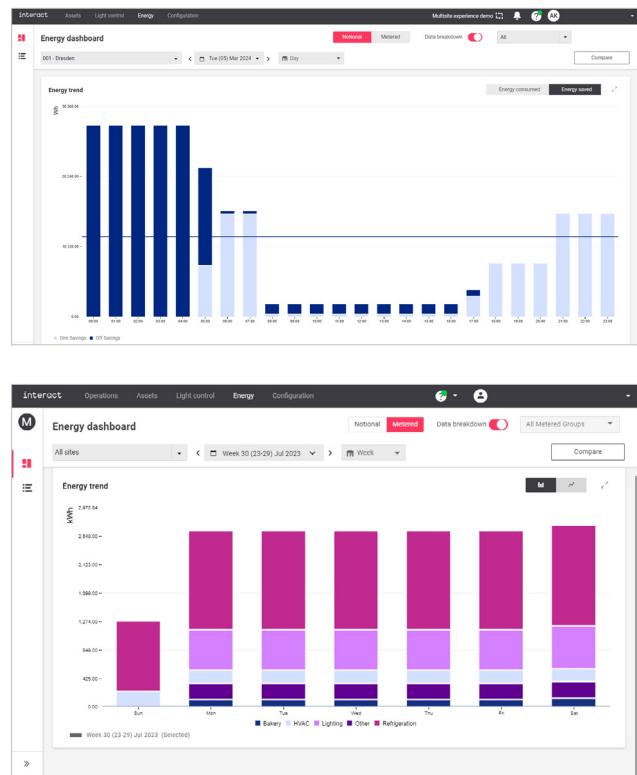
- Total energy consumption
- Data breakdown to show energy consumption per group
- Select a single group to gain more insights of the energy consumption of this group



Graphical representation of the energy trend

Energy trend view

- Shows a detailed diagram of historical data of either energy consumption or energy savings.
- Analyze trends of one of your sites or select all sites
- Compare energy trend with a previous period to easily detect anomalies
- Investigate energy breakdown to gain further insights
- Study dim savings to derive insights.
- Drive down energy consumption to save cost and meet sustainability goals



Compare sites with the site list

The table shows the total energy usage overview for 10 sites. The columns include Site name, Consumed energy (kWh), Dim service (kWh), Light points (kWh), Total (kWh), Dim service (Light points), Total (Light points), and Total (kWh). The site 003-Berlin is highlighted in pink.

| No. | Site name | Consumed energy | | | Saved energy | | |
|-----|----------------|-----------------|--------------------|-----------|--------------|--------------------|--------|
| | | [kWh] | [kWh/ Light point] | [kWh/ m²] | [kWh] | [kWh/ Light point] | [kWh] |
| 1 | 001-Dresden | 384.40 | 0.84 | 192.20 | 58.0 | 278.00 | 0.60 |
| 2 | 002-Düsseldorf | 390.33 | 398.33 | 179.17 | 82.9 | 312.07 | 312.07 |
| 3 | 003-Berlin | 466.80 | 466.80 | 233.40 | 70.5 | 195.60 | 195.60 |
| 4 | 004-Frankfurt | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 5 | 005-Hamburg | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 6 | 006-Hannover | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 7 | 007-Köln | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 8 | 008-Lausitz | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 9 | 009-München | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 10 | 010-Stuttgart | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Site list view

- Shows the ranking of a selected site in comparison with all other sites
- Easy sorting on various energy parameters (absolute or normalized)
- Find outliers, best and worst performing sites, easily and act on it.
- Analyze a specific period of interest

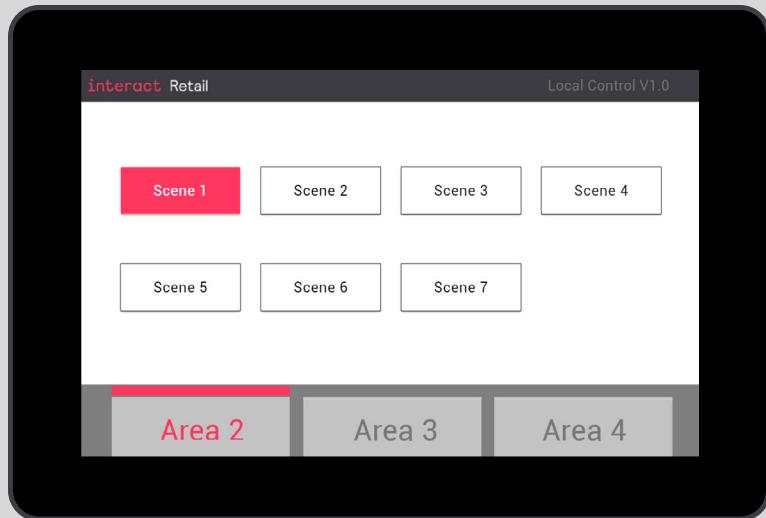


Local manual override

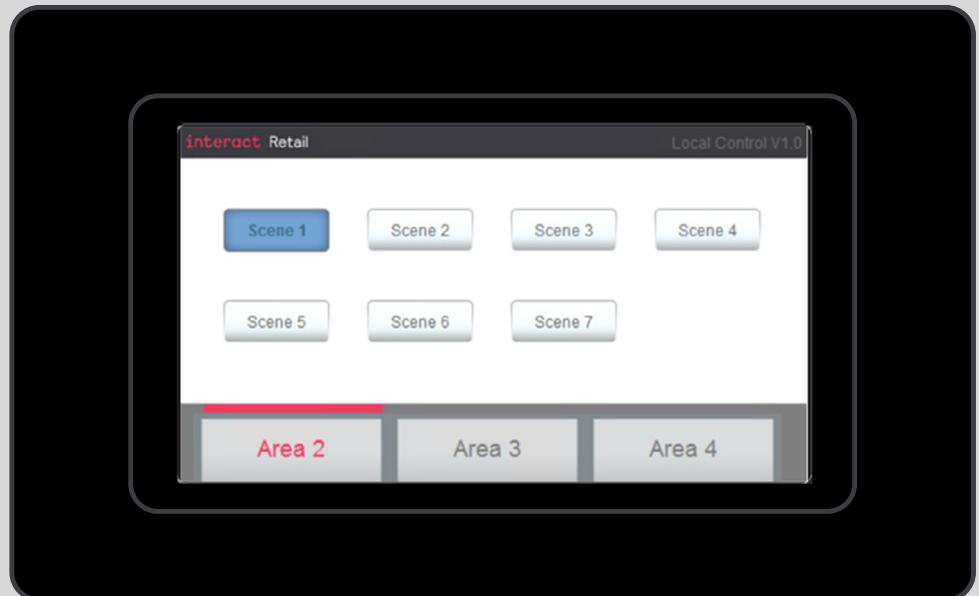
Let your store staff take control

Touch panel for local manual override provides the store owner flexibility by adjusting lights quickly on the spot:

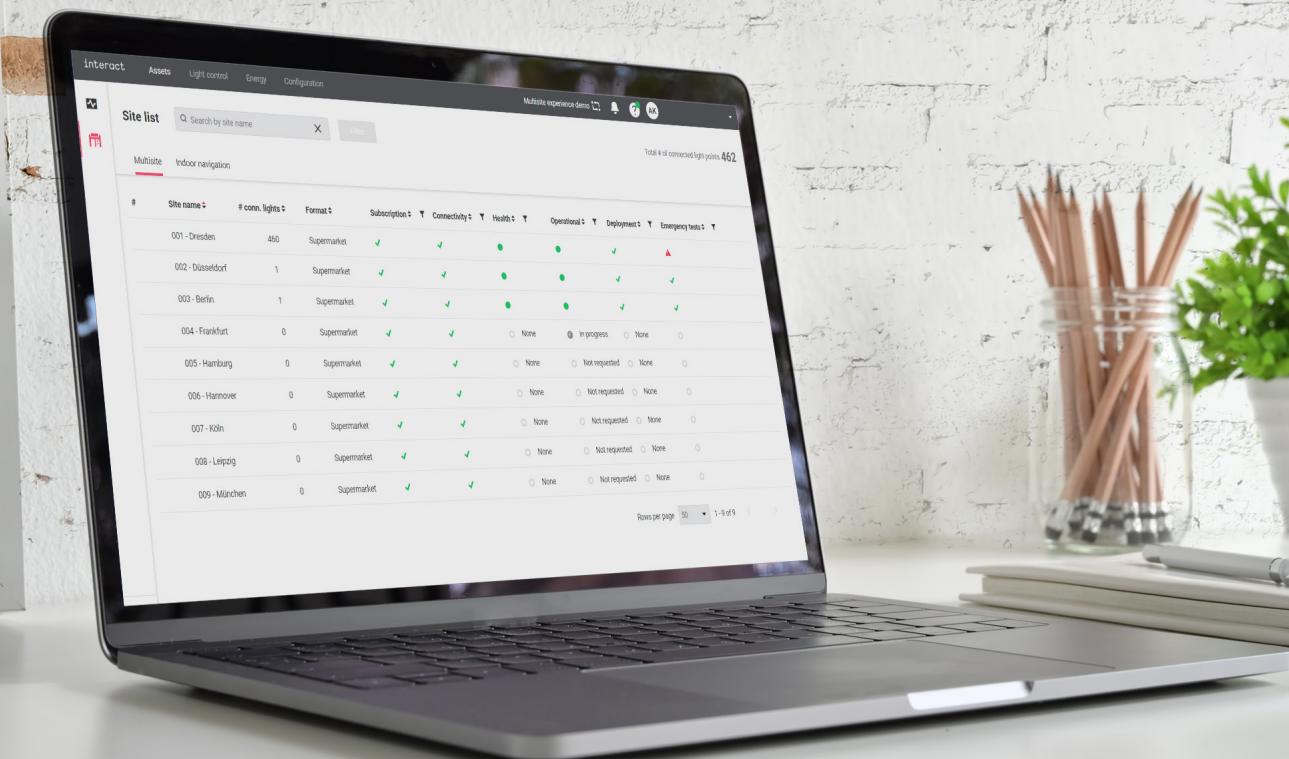
- Allows to select one of the presets per area
- Lighting switches automatically back to the schedule after two hours
- Easily upgrade your existing Store Kit or Store Flex (StoreWise) to Multisite
- Reusing existing lighting controls infrastructure and adding a new site gateway



PDT5 touch panel



Upgrading installed DTP100 touch panel



Quarterly reports unlock the data that all your sites generate

An insightful quarterly report summarizes the performance and system health data of all your connected sites as generated by Multisite system manager.

This report contains rich historical data allowing you to follow trends over the last three months. It also shows the best and least performing sites indicating whenever anything requires your attention and to take corrective action.





Performance report

Overview of all your sites and active services

Subscriptions expiring soon

Notional energy consumption

Energy savings achieved by dimming your light

Carbon footprint reduction achieved by adjusting the lighting properly

Historical cloud availability

1. Serviced sites and subscriptions

| Sites | January | February | March |
|----------------------------|---------|----------|-------|
| Total sites in preparation | 1 | 6 | 2 |
| Total operational sites | 32 | 32 | 37 |
| Total sites | 33 | 38 | 39 |

Subscriptions

Subscriptions added

Total subscriptions

Upcoming expiration date for a site 30/06/2024

For a table with all serviced sites and subscriptions: see Appendix

2. Remote system adjustments*

| Deployments | Reporting period | | Last 12 months | |
|----------------------------|------------------|----|----------------|----|
| | 16 | 56 | 18 | 69 |
| Adjustments to sites | | | | |
| Saved costs of site visits | € 3600 | | € 13800 | |

Assumption: € 200 per site visit

| | Apr '23 | May '23 | Jun '23 | Jul '23 | Aug '23 | Sep '23 | Oct '23 | Nov '23 | Dec '23 | Jan '24 | Feb '24 | Mar '24 | Total |
|----------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| | Deployments | 12 | 7 | 5 | 0 | 1 | 3 | 5 | 3 | 4 | 3 | 3 | 56 |
| Adjustments to sites | 12 | 10 | 6 | 0 | 2 | 3 | 10 | 3 | 5 | 3 | 5 | 10 | 69 |

* Excludes initial configuration and customer deployments

Number of saved site visits by remote (batch) updates of scenes and schedules

3. Notional energy consumption and energy savings

| Sites for energy reporting | January | | February | | March | |
|----------------------------|-----------|----|-----------|--|------------|--|
| | 32 | 32 | 37 | | | |
| Energy consumption* | | | | | | |
| Total of all sites | 48.72 MWh | | 45.40 MWh | | 49.10 MWh | |
| Average per site | 1.52 MWh | | 1.42 MWh | | 1.33 MWh | |
| Dim savings | | | | | | |
| Total of all sites | 19.76 MWh | | 18.33 MWh | | 20.03 MWh | |
| Average per site | 0.62 MWh | | 0.57 MWh | | 0.54 MWh | |
| Percentage | 28.9 % | | 28.8 % | | 29.0 % | |
| Switch off savings | | | | | | |
| Total of all sites | 98.05 MWh | | 92.27 MWh | | 105.92 MWh | |
| Average per site | 3.06 MWh | | 2.88 MWh | | 2.86 MWh | |

* Notional energy consumption based on installed power and light level

Energy savings by scheduling and dimming versus installed power

4. Carbon footprint and CO₂ reduction

| Energy saving | Total energy savings | Dimmed energy savings* |
|----------------------------------|-----------------------------|----------------------------|
| Smart lighting will save | 354.35 MWh | 58.09 MWh |
| Emissions reduction | | |
| Carbon footprint reduction | 160.17 tons CO ₂ | 26.26 tons CO ₂ |
| Equivalent environmental benefit | | |
| Avoided annual emissions of | 4004 trees planted | 657 trees planted |

*Energy savings accumulated for the reporting period

Conversion parameters used
CO₂ emission factor (gCO₂/kWh), value 452, source IEA 2015
CO₂ equivalent trees (tCO₂/tree/year), value 6

Usage of local manual override versus centrally deployed scenes

6. Compliance

6.1 Sales floor

Compliance check between central deployments and local manual overrides

| Compliance | January | February | March |
|--|-------------|-------------|-------------|
| Sites fully compliant | 17 sites | 19 sites | 10 sites |
| Sites with non-compliant operation | 15 sites | 13 sites | 27 sites |
| Total hours of compliant operation | 56223 hours | 52811 hours | 60635 hours |
| Total hours of non-compliant operation | 1065 hours | 781 hours | 1021 hours |
| Percentage of non-compliant operation | 1.9 % | 1.5 % | 1.7 % |

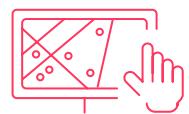
7. Cloud availability

| | January | February | March |
|----------------------------------|----------|----------|----------|
| Planned downtime | 00:051 h | 00:022 h | 00:022 h |
| Unplanned downtime | 00:000 h | 00:001 h | 00:000 h |
| Percentage of cloud availability | 100.0 % | 100.0 % | 100.0 % |



Service that help to keep your site up-to-date

Powerful remote lighting control includes remote monitoring services. You are entitled to helpdesk & service ticketing. Regular software security and feature updates via cloud ensures that your system is always up to date.



Optional services

1. **4G connectivity service:** Taking away the hassle of integrating with your IT by including a 4G router into the installation.
2. **Remote operations:** Peace of mind – we manage and monitor your lights remotely upon your needs.





Optional remote operations

4G connectivity service

In case fixed line connectivity is not possible, we can offer powerful wireless connectivity from the day of commissioning.

- Hassle free installation and commissioning
- Includes a secure 4G IoT router with embedded SIM delivered in partnership with Vodafone
- Managed data bundle
- Broad EU/US coverage: 30+ countries

Remote emergency lighting testing service

Store safety is key, and regular health checks of emergency lighting is mandatory. Save precious time by triggering emergency light tests remotely via our experts.

- Trigger functional and duration tests remotely
- Query emergency test results remotely
- Get report with historical test results to plan replacement efficiently if needed
- Get confirmation that your emergency lighting operates correctly on battery



Remote post install site tuning service

Remote expert support to facilitate post install fine tuning and adjustment of your configuration.

- Supports fast and more reliable project execution
- Robust commissioning process to safeguard delivery on time
- No need for additional onsite visits after project handover



Enhance operational efficiency by integrations

Multisite System Manager seamlessly integrates with various types of building management systems including alarm systems using different local or cloud interfaces.



Thereby it makes your operational ecosystem smarter. Your facility management and maintenance team gets their job done more efficient and cost effective.

Gain insight into the status of the lighting throughout your sites, down to the individual luminaire, and improve maintenance planning and execution.





Integration with other systems in the building

Hassle free operations with local integration

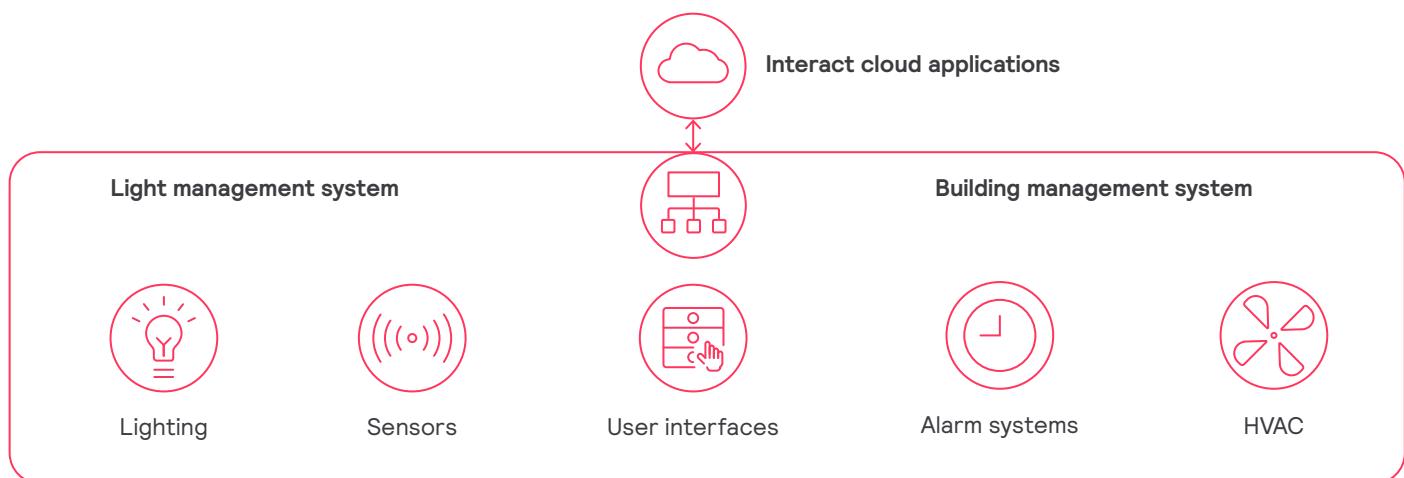
- With alarm, refrigeration and BMS systems
- Leverage BMS routines to trigger scenes

Support of common interfaces

- Dry contact
- BACnet
- CGI

Large variety of local manual override options

- Using touch screens, touch panels or
- Daylight- and presence sensors



Coming soon

Multisite cloud API integrations



Energy API:

- Makes historical consumed energy data per store available
- Notional and metered energy data



Light Control API and Calendar API:

- Allows contextual lighting control such as store opening hours
- Triggers & scheduling from building routine e.g., BMS or Alarm system



Data API:

- Make lighting asset data such as failures available
- Comprises health status and light points failures



End-to-end encryption & granular permissions keep your system secure

Best-in-class security is provided for all your connected systems, services and data. Interact supports security on every interface, while data, both in transit and at rest, are end-to-end encrypted.

The Multisite system is based on a modular on-premises Philips Dynalite controls architecture with a secure connection to the Interact cloud platform, managed by Signify, built on top of it.

The site gateway provides a secure cloud connection and manages all lighting at your site. The site gateway (PDDEG-S) connects securely over the internet to the cloud, and via RS-485 or Ethernet to the controllers on site.

Our cloud dashboard and API interfaces are SSL encrypted with token-based authentication.



TLS
Encrypted
Network



LDAPS
Encrypted
Authentication



SSL secured
Dashboard
and API's



ISO 27001
certified
system



Role-based permissions

Access rights and privileges are managed by simple role-based permissions (least privileges) for the following user roles:

| Activities / Roles | Facility manager | Format manager | Site manager/Staff |
|--|------------------|----------------|--------------------|
| User management (e.g. workorders, etc) | ✓ | | |
| Assets and health | ✓ | ✓ | |
| Light control (Concepts and Schedules) | ✓ | ✓ | (✓) |
| Configuration (Design) | ✓ | | |
| Energy monitoring | ✓ | ✓ | |

Explanation of the symbols

✓ Possible

(✓) Local temporary override only

Azure active directory identity management

Simplify account and password management by allowing users to securely log in to the Interact dashboard using their existing company email address and password.

Federating with your existing Azure active directory tenant to invite authorized users and assign corresponding roles. State of the art security measures ensure that your system is protected, and your data is secure.

Our policies are in accordance with ISO 27001 and IEC 62443-4-1, a security certification for product development processes which ensures that all identified security requirements are implemented, verified, tested, and documented with traceability.



Further reading

Learn more about how Interact enhances shopper experience, energy savings, etc.

Understand in more detail how real-time occupancy saves energy, and what your savings will be in our report by Cundall.



White paper



Guidehouse insights

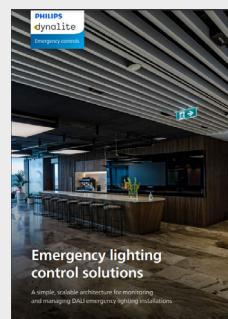
Product brochures



User Interfaces & Electrical Accessories

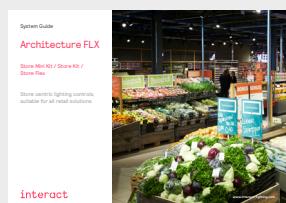


Sensor Technologies & Product Range



Emergency lighting control solutions

System documents



Architecture FLX System Guide

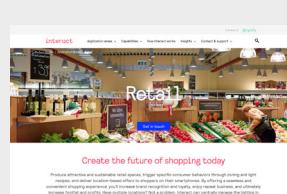


Architecture FLX User Guide



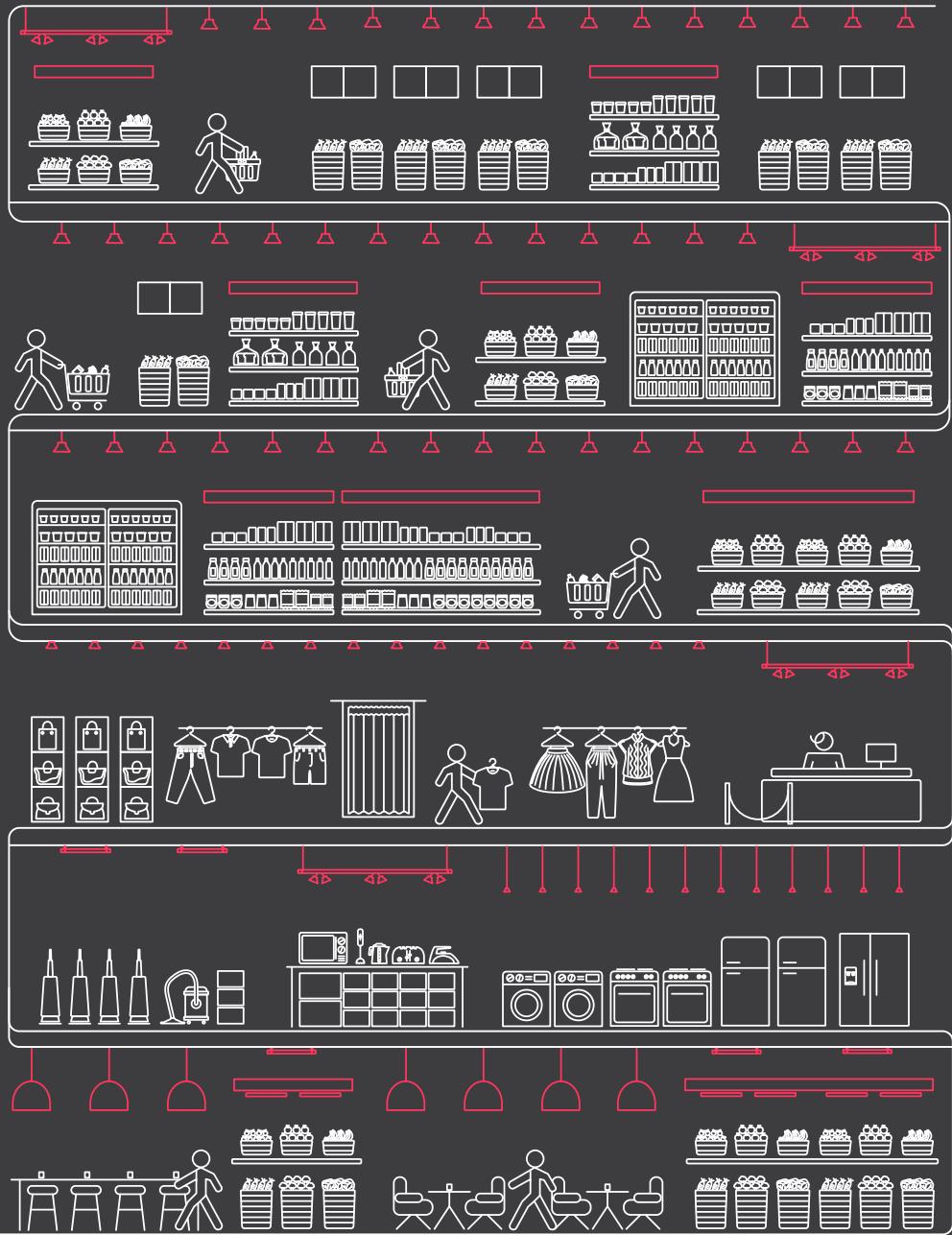
Bill of materials

System information



Retail applications

interact



Find out how Interact can transform your business

www.interact-lighting.com

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