

# Lumina Gateway for Enterprise System Overview

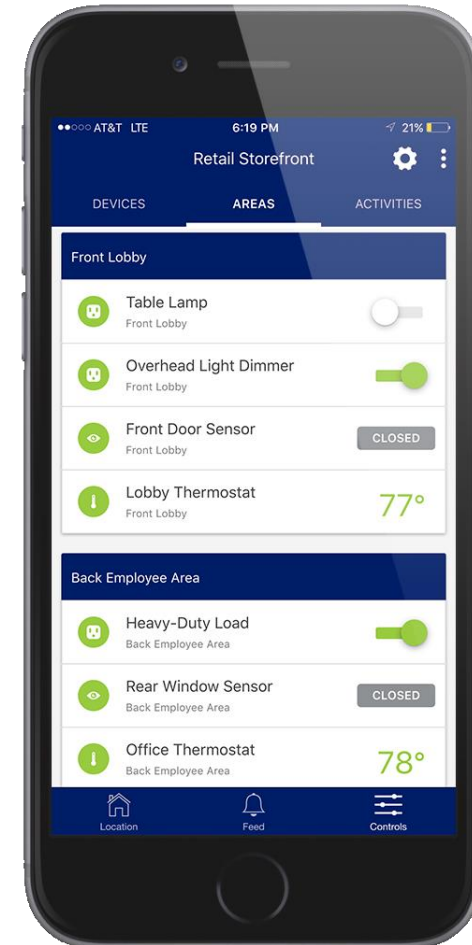
October 4, 2016

# What is the Lumina Gateway?

Light Commercial Energy Management Automation Eco-System

# What is the Lumina Gateway?

- **Wireless Small Commercial Energy Management System**
- **Lumina™ Gateway Hub/App/Cloud Dashboard**
  - 74A00-1 (aka LU741)
- **Enhanced for Multi-Location Management (Enterprise)**
  - Leviton Cloud Services Subscriptions Available
- **Works with Leviton's Lumina RF Wireless Devices:**
  - Lighting Control
  - High Wattage Load Control
  - Temperature/Humidity
  - Sensors
  - Scheduling
  - Notification
  - Window Coverings (Shades – Somfy)
  - Remote Access



# Features

## ■ Lumina Gateway 2.0 Features:

- Web-Based Control Mechanism/Dashboard
  - Update in real-time via [LCS.Leviton.com](http://LCS.Leviton.com)
- Web-Browser programming based on times and tasks
- New Apps + enhanced communication via new Cloud
- Monthly Subscriptions to Leviton Cloud Services include Feature Enhancements: Free, Basic, Premium Tiers
  - Enterprise control - easily manage multiple property schedules and holidays
  - See a map of all store locations
  - Event History + Activity Feeds
  - User Maintenance
  - Notifications and Alarms
  - Temperature Logging & Refrigeration Monitoring (Coming soon)



# Enterprise level control of multiple locations

## Multiple Locations?

Easily Manage Corporate-Wide Schedules and Holidays at All Locations





## Lumina™ Gateway Hub

The brain of each location coordinates wireless devices, provides remote access and facilitates automation activity to each room or device. Utilize one in each location and connect all locations to any computer or mobile device. Easily add new smart devices and create multi-location schedules with other enhanced features via a monthly Leviton Cloud Services plan.



## Lumina RF Wireless (PIR) Occupancy Sensor

Self-powered, wireless sensor easily mounts on ceiling or surface. Provides advanced motion detection and a 360° field of view.



## Lumina RF Decora® 0-10V Wall Dimmer

Allows wireless dimming of any 0-10V controlled load with ON/OFF and raise/lower control. Replaces traditional single-pole wall switches, no additional wiring required.



## Lumina RF 15 Amp Plug-in Load Control Module

Automatically turns small loads on/off, perfect for appliances, fans, and lamps.



## Lumina RF Wireless Thermostat

Programmable communicating thermostat provides precise digital temperature control over HVAC systems.



## Lumina RF Motion Sensor

Wireless motion sensor discreetly mounts in the corner of a room for occupancy based energy management.



## Lumina™ RF Door/Window Sensor

Easily applies to doors and windows for open/closed status and automation.



## Leviton Cloud Services App

Lumina Gateway's iOS and Android apps allow for quick and easy monitoring and adjustment of lighting, temperatures, and heavy-duty loads like fountains, pumps, and generators from anywhere in the world. With a Leviton Cloud Services plan, control multiple locations by viewing a map and every connected business location, ideal for franchises and multiple property business owners.

For more information contact your local rep or visit [www.leviton.com/gateway](http://www.leviton.com/gateway)

# Plan Types

## Free

### Your Current Plan

For small organizations with minimal requirements

#### Free Includes:

- **30 Days** History and Graphing
- **5 Days** Activity Feed
- Up to **40** connected devices per Location

✓ My Current Plan

## Basic

For mid-sized organization with multiple locations and basic requirements

#### Includes Everything in Free, Plus:

- Basic Notifications
- Refrigeration Monitoring

Upgrade to Basic

## Premium

For large organization with extensive locations or advanced requirements

#### Includes Everything in Basic, Plus:

- **5 Years** History and Graphing
- **5 Days** Activity Feed
- Organizational Level Scheduling
- Organizational Holiday Exceptions
- Organizational User Rights
- Location Mapping
- Location Status Indicators
- Custom notifications to user types

Upgrade to Premium

# Roles – Types of Users

## ■ Agents: access to all locations

- Full administrative privileges including user maintenance, account status, and billing information

## ■ Administrator: access to all locations

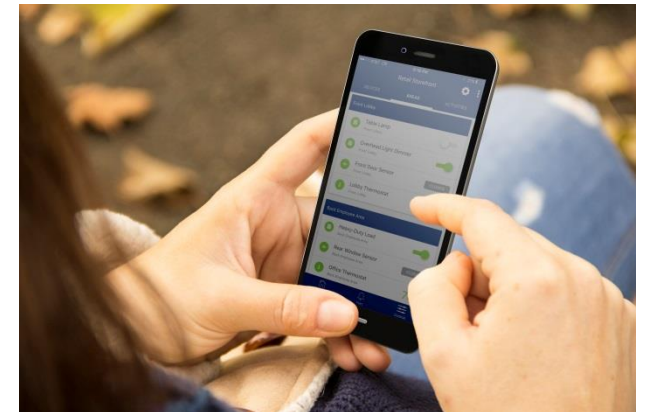
- Full administrative privileges including user maintenance.
- Cannot edit organizations, account status, or billing information

## ■ Installers: access to all locations

- Schedule, activities, device setup/configuration/and control.
- Cannot edit organizations, users, account status, or billing information

## ■ Manager: set access to specific Regions, Districts, or Location

- Location scheduling and device control only





# Agents

## ■ Agents: access to all locations

- Full administrative privileges and access to all system features
  - Edit organization, maintain account status and billing information
  - Create and rename “regions and districts”
  - Add/remove locations, edit locations
  - Create and edit areas, schedules, and activities for a location
  - Add and configure new devices, remove/delete devices, enroll/disband devices
  - Create company-wide and location specific scheduling; create holiday schedules and exceptions
  - Perform user maintenance
    - Add and invite users to join the organization
    - Assign permissions as Agent, Admin, Installer, or Manager
  - View feeds and history and generate reports

# Administrators

## ■ Administrator: access to all locations

- Full administrative privileges and access to all system features except account maintenance and billing
  - Create and rename “regions and districts”
  - Add/remove locations, edit locations
  - Create and edit areas, schedules, and activities for a location
  - Add and configure new devices, remove/delete devices, enroll/disband devices
  - Create company-wide and location specific scheduling; create holiday schedules and exceptions
  - Perform user maintenance
    - Add and invite users to join the organization
    - Assign permissions as Agent, Admin, Installer, or Manager
  - View feeds and history and generate reports

# Installers

## ■ Installers: access to all locations for configuration support

- Create and rename “regions and districts”
- Add/remove locations, edit locations
- Create and edit areas, schedules, and activities for a location
- Add and configure new devices, remove/delete devices, enroll/disband devices
- Create company-wide and location specific scheduling; create holiday schedules and exceptions
- View feeds and history and generate reports

# Manager

## ■ **Manager: regional, district, or specific location control**

- “Managers” are assigned to a region, district, or location when their account is added to an organization
  - View and open regions, districts, and locations based on permissions
  - View areas, schedules, and activities for a location
  - Create and edit location specific schedules
  - View and control devices
  - Manually activate an activity
  - View feeds and history and generate reports

# Verify E-Mail Messaging from LCS

- Whitelist: [lcs.leviton.com](https://lcs.leviton.com)
- Notifications come from: [noreply@lcs.leviton.com](mailto:noreply@lcs.leviton.com)

# Areas, Devices, Schedules, Activities, Triggers

## ■ Areas

- In the facility Areas can be custom named to represent: Rooms, Floors, Zones, Spaces
- Areas are used by the Lumina Gateway to define the location of devices
  - Ex. An Area called “Kitchen” could receive a command to turn off all devices located in the “Kitchen”

## ■ Devices – Lumina RF Family

- Loads, thermostats, sensors, shades, interfaces, etc
- Lumina RF devices are assigned to Areas

## ■ Schedules

- Schedules are set times pre-defined that are used to run activities

## ■ Activities

- Activities include specified one or more actions and are attached to schedules to automate connected devices

## ■ Triggers

- Activities can also be “triggered” based upon an event rather than a scheduled time
- For ex: Door contact opens, triggers lighting load to turn on and send notification

# Notification and Alarms

## ■ Notifications

- Subscribe using your login “preferences and notifications”
- Methods include e-mail or SMS
- Triggers include:
  - Alarms
    - Temperature (Thermostat or Temperature Logger)
      - Set Alarms for Thermostats and Temperature Loggers in the individual Device Setup
    - Humidity (Thermostat)
  - Warnings
    - Controller Connectivity
    - Device Connectivity
    - Device Battery Warnings
  - Events
    - Schedule Execution
    - Area Occupancy/Vacancy

# Lumina RF Eco-System



## ■ Lumina RF Mesh Networking:

- Wireless devices speak with one another, creating a “mesh” communication structure inside the building
- Lumina RF devices wirelessly transmit at a minimum of 50 feet.
- Total of 40 connected devices.
- Example: Light Switch at the front of the building needs a pathway to speak to the Gateway hub, which could be greater than 50’ away.
- Place thermostats, plug-in modules, and other switches in the chain to connect back to the Gateway



# Lumina RF Family of Load Control Hardware

## ■ Appliance Module

- 89A00-1ZB: 120VAC 15A Plug-in Appliance module
  - Provides control of electrical devices that plug into receptacles
  - Designed for loads up to 15A



## ■ Wall Switches + Dimmer

- ZSS10-N0Z: 120-277VAC 10A Wall switch
  - Applications with a neutral connection
- ZSS10-G0Z: 120-277VAC 10A Wall switch
  - Applications without a neutral connection
- ZSD07-ADZ: 0-10V Sinking 120-277VAC Dimmer



## ■ Load Control Modules

- 73A00-3ZB: 96-250VAC (50/60 Hz) 30A Load control – Use for high current applications
  - Provides control of electrical branch circuits including receptacles
- 73A00-4ZB: 96-250VAC (50/60 Hz) 5A Load control – Use for low current applications
  - Provides 5A dry contact load control



# Enrolling Devices – Load Control Devices

## ■ Place the Lumina RF device in enrollment mode

- ZSS10-N0Z: Wall switch with a neutral connection
- ZSS10-G0Z: Wall switch for applications without a neutral connection
  - Install the switch in the operating location
    - Press and hold the bottom of the paddle for >10 seconds then release
      - The LED will blink amber
    - Press and hold the bottom of the paddle a second time >5 seconds then release
      - The LED will blink green rapidly
  - Press -/+ to choose find the switch and pair it with the thermostat
  - If the switch had been previously been enrolled in a Lumina RF network
    - Press and hold the bottom of the paddle for >10 seconds then release
      - The LED will blink green
    - Tap the bottom of the paddle 4 times
      - The LED will blink 5 times
    - Press and hold the bottom of the paddle a second time >5 seconds then release
      - The LED will blink red
    - Press and hold the top of the paddle >5 seconds then release



# Enrolling Devices – Load Control Devices

## ■ Place the Lumina RF device in enrollment mode

- 89A00-1ZB: Plug-in Appliance module
  - Install the appliance module in the operating location
    - The LED should be slowly blinking
    - Press and hold the side button for >5 second
    - The LED will blink rapidly
  - Press -/+ to choose find the appliance module and pair it with the thermostat
    - If the LED is not blinking slowly, the module must be defaulted
      - Press and hold the side button for 6-8 seconds
      - Wait 6-8 seconds
      - Press and hold the side button for 6-8 seconds
      - The LED should be slowly blinking



# Enrolling Devices – Load Control Devices

## ■ Place the Lumina RF device in enrollment mode

- 73A00-3ZB: Load Control Module
  - Install the load control module in the operating location
    - The LED should be slowly blinking
    - Place the magnet in position for >5 second
    - The LED will blink rapidly
  - Press -/+ to choose find the load control module and pair it with the thermostat
    - If the LED is not blinking slowly, the module must be defaulted
      - Place the magnet in position for 6-8 seconds
      - Wait 6-8 seconds
      - Place the magnet in position for 6-8 seconds
      - The LED should be slowly blinking



# Lumina RF Family: Sensors

## ■ Wireless Ceiling Occupancy Sensors

- Low-profile PIR occupancy sensor
- Minor and Major motion
- Enable/Disable LED where brightness is a factor (hospitality)
- Surface Mount
- Battery Powered (7-10 year life)



## ■ ZSC04-INW: Coverage of up to 450 sq/ft

- Battery Powered 7-10 year life

## ■ ZSC15-INW: Coverage of up to 1,500 sq/ft

- Battery Powered 7-10 year life

# Enrolling Devices - Sensors

## ■ Place the Lumina RF device in enrollment mode

- ZSC04-INW: Occupancy Sensor: Coverage of up to 450 sq/ft
- ZSC15-INW: Occupancy Sensor: Coverage of up to 1,500 sq/ft
  - Place the sensor in the operating location
    - Pull the plastic battery insulator out powering the sensor
    - Press and hold the button for >10 seconds then release
      - The LED will blink green
    - Press and hold the button a second time >5 seconds then release
      - The LED will blink rapidly
  - Press -/+ to choose find the sensor and pair it with the thermostat
  - If the sensor had been previously been enrolled in a Lumina RF network
    - Press and hold the button for >10 seconds then release
      - The LED will blink green
    - Tap the button 4 times
      - The LED will blink 5 times
    - Press and hold the button a second time >5 seconds then release
      - The LED will blink red
    - Press and hold the button a third time >5 seconds then release



# Lumina RF Family: Wireless Sensors

## ■ Door / Window Contact

- Part # LURDW
- Reports open / closed status of doors and windows
- Compact size
- Three color LED event indication/confirmation
- Long battery life (up to 5 years)
- Easy battery replacement



## ■ Leviton Motion detector: corner mount

- Part # LURMD
- Reports occupancy / vacancy within its viewing range
- Compact size
- Three color LED event indication / confirmation
- Long battery life (up to 5 years)
- Easy battery replacement
- Coverage area: approximately 16 feet



# Enrolling Devices - Sensors

## ■ Place the Lumina RF device in enrollment mode

- LURMD-00W: Motion Detector
  - Place the sensor in the operating location
    - Pull the plastic battery insulator out powering the sensor, the LED will flash amber/red/amber
  - Press -/+ to choose find the sensor and pair it with the thermostat
    - If the sensor had been previously been enrolled in a Lumina RF network
      - Press the Enroll button 10 times to reset the sensor



# Lumina RF Temperature Logger (LURTL-000) Prototype

## ■ Lumina RF Temperature Logger

- Lumina RF MESH Wireless Device
  - Temperature monitoring and logging
  - Temperature threshold reporting
  - Remote monitoring via Lumina Gateway and LCS
- Measures and logs temperature using up to two connected external temperature RTD sensor probes
- Stores data in onboard memory (minimum of 72 hours of logs)
- Internal battery to continue monitoring in the event of a power outage
- Temperature readings and thresholds can be set to provide alarm notifications via app, e-mail, or SMS
- Water resistant and dust proof enclosure with attached mounting brackets
- Uses AA batteries – 3 Year Battery Life when running on internal power
- Micro USB port for connected power: 5VDC
- Includes one Stainless Steel RTD probe and Power Supply



# Lumina RF Temperature Logger (LURTL-000) Prototype

## ■ Lumina RF Temperature Logger Interface:

- Power switch, Status LED (Red/Green), Enroll/Reset Button
  - Solid green LED during power on shows device is booting up
- Enroll:
  - Hold button for 7 seconds until LED blinks green (5 min timeout)
  - Enroll using Leviton Cloud – LED turns off once enrolled
- Disband:
  - Hold button for 7 seconds until LED blinks green
  - Power cycle the device; comes back up in a default state – LED not lit
- Factory Reset:
  - Tap button 5 times; LED alternates RED/GREEN
  - Hold button until LED turns solid GREEN
    - LED will turn off once logs/memory has been cleared



# Lumina RF Temperature Logger (LURTL-000) Prototype

## ■ RTD Type

- 1K Ohm (@25C) RTD
- -50C to 150C
- 4 wire Conductor; 18 Gauge; twisted shielded pair
- Leads that can go into a terminal block
- Glycol Encased
- Standard RTD probe style, stainless steel (4 inches)



# Temperature + Humidity Control

## ■ RC-1000WHZB

- Conventional thermostat, available in White/Black/Silver
  - Single Stage
    - Gas, Oil, Steam, Hydronic, Forced Air, Radiant, and Electric
  - Air to Air Heat Pump and Dual Fuel
- Proximity Sensing

## ■ RC-1500WHZB

- Multi-Stage Universal thermostat, available in White
  - All off the single stage capabilities of the RC-1000
  - Two stages of cooling and three stages of heating
    - Geothermal Heat Pump

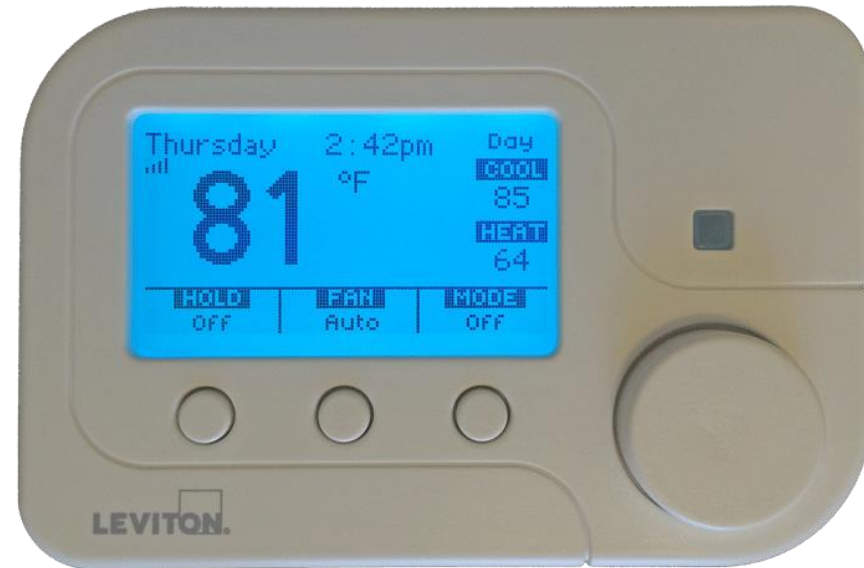
## ■ RC-2000WHZB

- Multistage thermostat with humidity sensing, available in White/Black/Silver
  - Supports humidification and dehumidification



# Thermostat Enrollment

- Press the Scroll Wheel



# Thermostat Enrollment

- Press the Scroll Wheel
- Turn the Scroll Wheel to highlight “Setup” and press it to select



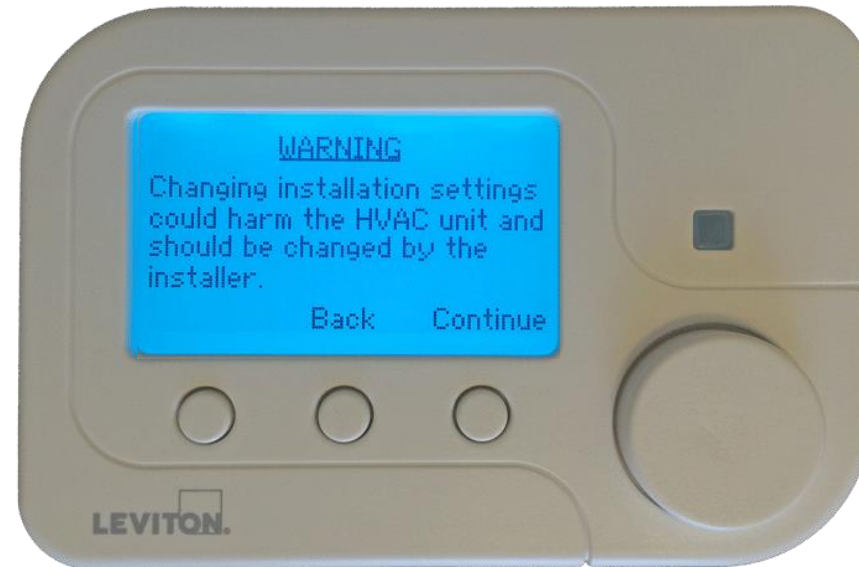
# Thermostat Enrollment

- Press the Scroll Wheel
- Turn the Scroll Wheel to highlight “Setup” and press it to select
- Turn Scroll Wheel to “Installation Settings” and press to select



# Thermostat Enrollment

- Press the Scroll Wheel
- Turn the Scroll Wheel to highlight “Setup” and press it to select
- Turn Scroll Wheel to “Installation Settings” and press to select
- Press Scroll Wheel to acknowledge warning





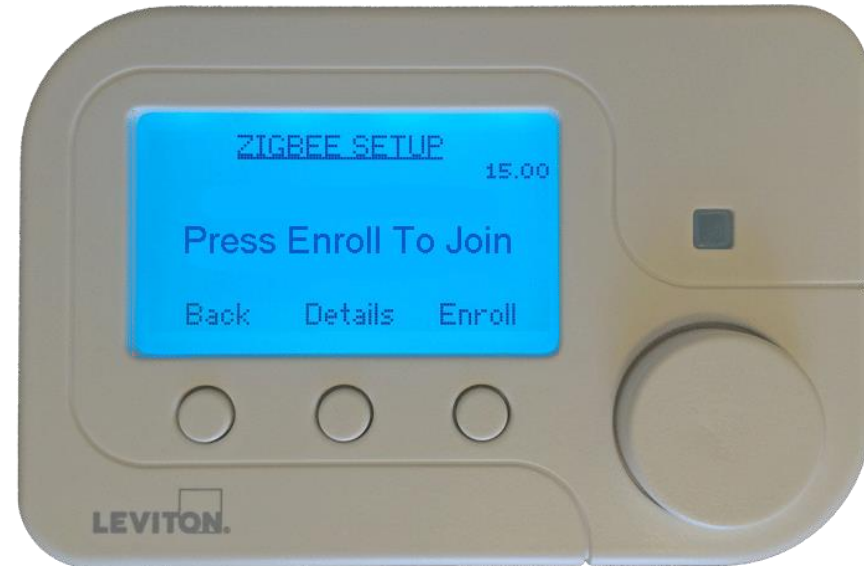
# Thermostat Enrollment

- Press the Scroll Wheel
- Turn the Scroll Wheel to highlight “Setup” and press it to select
- Turn Scroll Wheel to “Installation Settings” and press to select
- Press Scroll Wheel to acknowledge warning
- Select “Zigbee Setup”



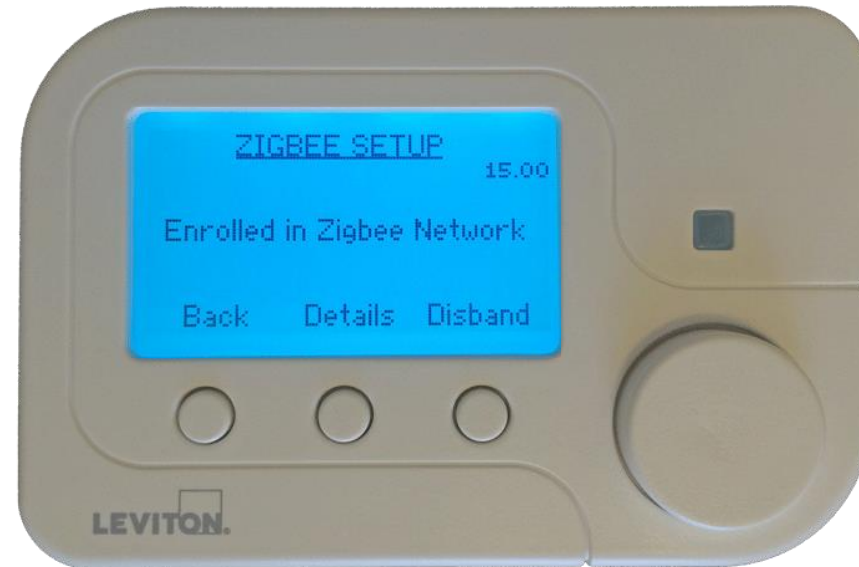
# Thermostat Enrollment

- Press the Scroll Wheel
- Turn the Scroll Wheel to highlight “Setup” and press it to select
- Turn Scroll Wheel to “Installation Settings” and press to select
- Press Scroll Wheel to acknowledge warning
- Select “Zigbee Setup”
- Press the button labeled “Enroll”



# Thermostat Enrollment

- Press the Scroll Wheel
- Turn the Scroll Wheel to highlight “Setup” and press it to select
- Turn Scroll Wheel to “Installation Settings” and press to select
- Press Scroll Wheel to acknowledge warning
- Select “Zigbee Setup”
- Press the button labeled “Enroll”
- When unit is properly enrolled a confirmation message will appear



# Building the Lumina RF MESH Network

## ■ Environment and range

- Know your environment and plan ahead
- Lumina RF supports up to 50 feet between devices and 40 connected devices per Lumina Gateway

## ■ Consider the material

- Be conscious of concrete floors, steel reinforced floors, ceilings, walls, elevator shafts, masonry, rock, radiant floors, cinderblock, chicken wire, reinforced materials, such as Venetian plaster, and stucco.
- Attenuation can impact wireless range; important to distribute Lumina RF devices to optimize signal strength

## ■ Specs:

- Data Transmission Rate
  - 40-250 kbps
- Frequency
  - 2.4 GHz

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# Dashboard, Apps, Setup

Lumina Gateway

# Enhanced User Experience

- **Fast connection to systems**
  - No downloading required
- **Multi-Location and Tiered Hierarchy Design**
- **Streamlined User Interface**
  - Consistent look and feel between the app and the web portal
- **Same experience on multiple platforms**
  - Android, iOS, Etc.

**Select a property  
to manage**

Add a new device  
or adjust a  
schedule from  
anywhere.



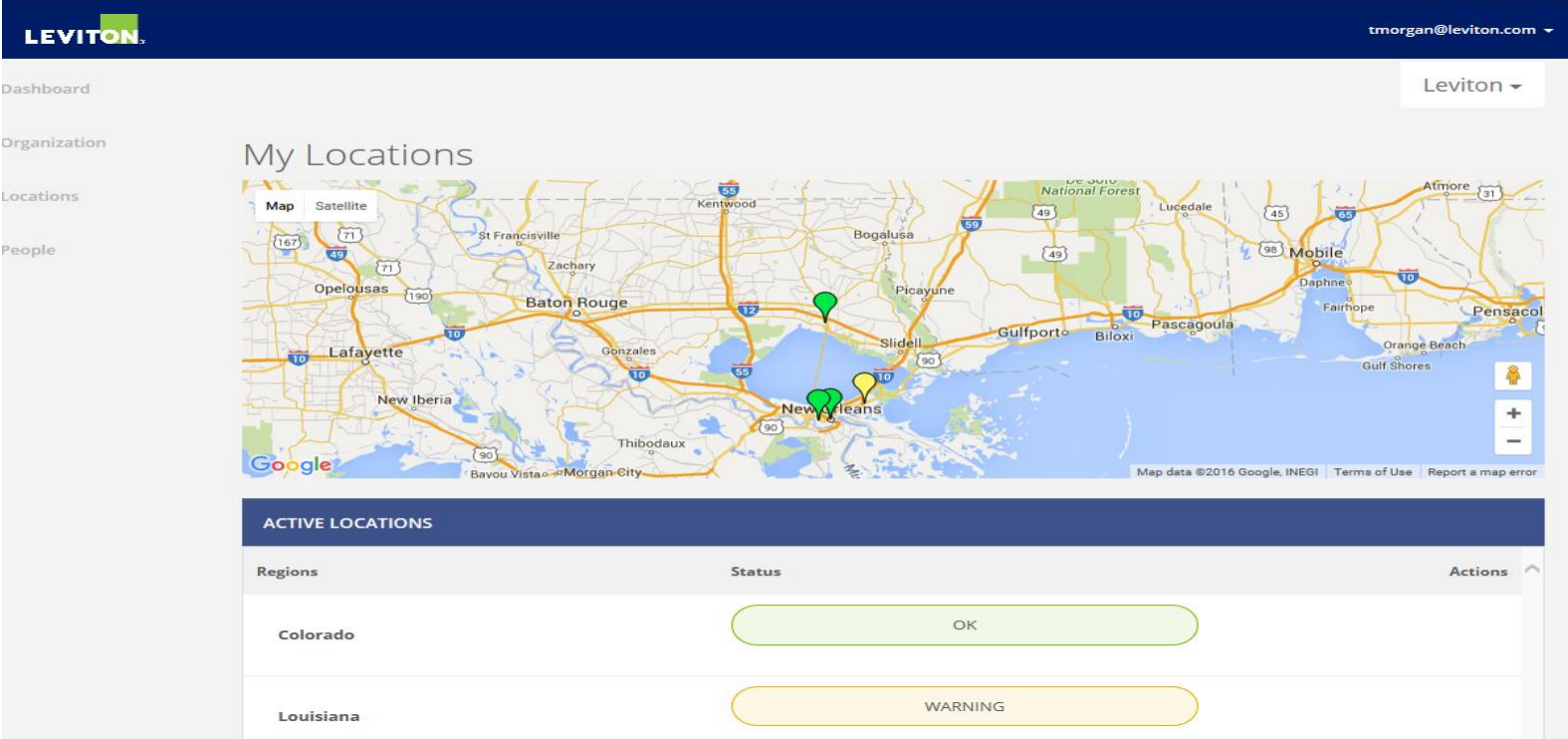
# Lumina Gateway for Enterprise

## ■ Setup and Configuration via LCS Web Interface

- Setup / Management devices remotely using a protected website
- Cross platform: Mac, PC, Tablets
  - Web-based, no “downloading” software.
  - Just login and choose a location

## ■ Deployment

- Create Areas
- Add and Enroll Devices
- Create Schedules
- Create Activities
- Create Alerts and Notifications



The screenshot displays the Leviton LCS Web Interface. The top navigation bar includes the Leviton logo and the user email 'tmorgan@leviton.com'. A sidebar on the left lists navigation options: Dashboard, Organization, Locations, and People. The main content area is titled 'My Locations' and features a Google Map of Louisiana with several location pins. Below the map is a table titled 'ACTIVE LOCATIONS' with the following data:

Regions	Status	Actions
Colorado	OK	
Louisiana	WARNING	

# Device Inclusion / Enrollment

- To add a new device, use the menu options Setup→Devices.
- Press the + button next to loads, thermostats, sensors, shades, or touchscreens
- We will Add a Load, and hit the “+” to initiate:
  - Pop-up generates, asks what Load we want to add. We select ZSD07.
  - We then assign it to a room. We select Front Lobby.
  - We then name the particular device, we say Front Lobby Dimmer.
  - We Enroll the device, **which includes instructions for enrollment**. Then hit done.

Add a Load ✓✓✓

What load do you want to add?  
ZSD07 - 0-10V Dimmer  
Super!

What Area is it in?  
Front Lobby  
OK!

What do you want to call it?  
Front Lobby Dimmer  
Looks Good!

Device to Add  
0-10V Dimmer  
ZSD07

Add Load Enroll Now Cancel

## Front Lobby Dimmer Enrollment

Device: Not Enrolled  
Controller: 235C4-PANPW-CV56X-M24J6  
Offline  
Not Ready

### Enrollment Instructions

Leviton Lumina RF Wall Switch - to enroll this device, take the following steps:  
1. On the switch, press and hold the bottom (off) button for >10 seconds - the LED should begin blinking amber.  
2. Now, press and hold the bottom (off) button for >5 seconds - the LED should begin blinking red until enrollment is complete.  
3. After enrollment is complete, on the switch tap the bottom button one time.

Enroll

Done



# Task/Application Based Programming

## ■ Time Scheduler

- **Day/Date / Astronomical Clock / Timed Events**
  - Examples: Store Open, Store Close
  - Holiday Exceptions
  - Events can appear in apps or can be hidden

## ■ Application Based Automation

- Temperature Alarms, Occupancy, Vacancy
- Title 24 Vacancy
  - Additional Title 24 support on the roadmap

Sensor (Door / Window Sensor)

Lumina RF Door/Window Sensor  
3011

What is the device called?  
Door / Window Sensor  
Looks Good!

What Area is it in?  
Main Area  
OK!

When the sensor's status changes... Occupancy Triggers

Event	Operator	Value	Run Activity
Becomes	Equal To	Open	<span>Blue</span> <span>Red</span>

[Add Status Trigger](#)

[Save](#) [Cancel](#)

The screenshot shows the Leviton mobile app interface. At the top, there is a dark blue header with the Leviton logo on the left and the user email 'Aard@leviton.com' on the right. Below the header is a navigation bar with icons for home, people, location, and users. The main content area is titled 'Schedules' and has three tabs: 'DETAIL', 'HOLIDAYS', and 'SCHEDULE'. The 'SCHEDULE' tab is active. Below the tabs is a table with the following data:

Name	Days	Time	Actions
Opening	Monday, Tuesday, Wednesday, Thursday, Friday (Don't run on holidays)	8:00 AM	<span>+</span> <span>-</span>
Closing	Monday, Tuesday, Wednesday, Thursday, Friday (Don't run on holidays)	5:00 PM	<span>+</span> <span>-</span>

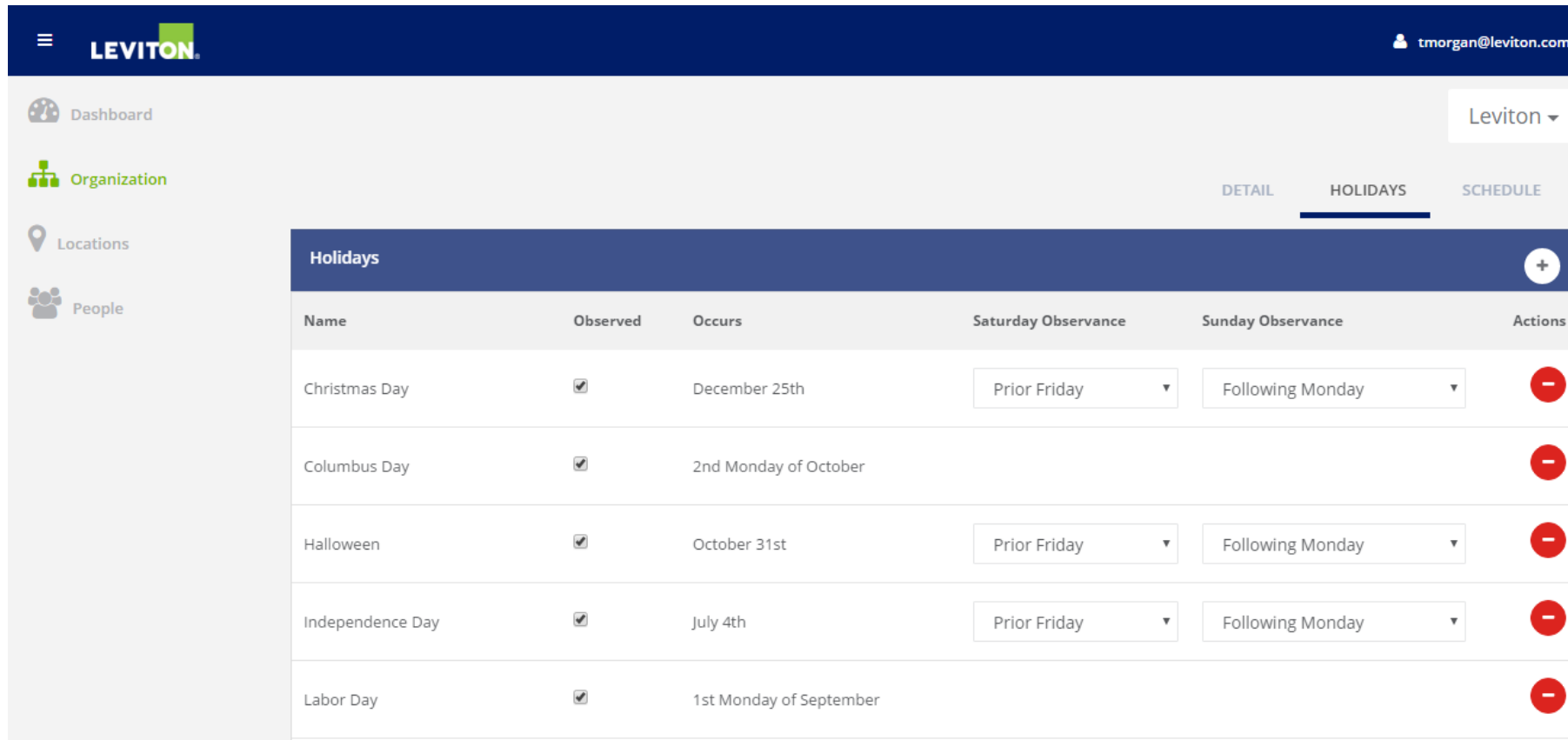
# Holiday Scheduling - Premium

## ■ Corporate Holidays and Schedules

- Holidays and schedules are created at the corporate level and pushed to locations

## ■ Location Holidays and Schedules

- Location schedules can be adjusted from corporate schedules to allow for local requirements



The screenshot displays the LEVITON system interface. The top navigation bar shows the LEVITON logo and the user email tmorgan@leviton.com. The sidebar on the left contains navigation icons for Dashboard, Organization, Locations, and People. The main content area has tabs for DETAIL, HOLIDAYS, and SCHEDULE, with HOLIDAYS selected. Below the tabs is a 'Holidays' section header with a plus icon for adding new holidays. The table below lists corporate holidays with their observed status, occurrence dates, and observance rules for Saturdays and Sundays.

Name	Observed	Occurs	Saturday Observance	Sunday Observance	Actions
Christmas Day	<input checked="" type="checkbox"/>	December 25th	Prior Friday	Following Monday	
Columbus Day	<input checked="" type="checkbox"/>	2nd Monday of October			
Halloween	<input checked="" type="checkbox"/>	October 31st	Prior Friday	Following Monday	
Independence Day	<input checked="" type="checkbox"/>	July 4th	Prior Friday	Following Monday	
Labor Day	<input checked="" type="checkbox"/>	1st Monday of September			

# Control is Available From The Web

## Remote Control via Web

- PC, Mac, Anything with Web Browser
- Single website for setup & control
- User restrictions for capabilities and access

## User-friendly design is consistent across various screen/device types

## Commands and changes and status updates are instantly executed

You went offline...

Refresh

Real-time System Status

The screenshot shows the Leviton web control interface. At the top, the Leviton logo is on the left and the user email 'tmorgan@leviton.com' is on the right. A navigation menu on the left includes 'Dashboard', 'Organization', 'Locations', and 'People'. The main content area shows 'Tom Morgan's Demokit' selected, with tabs for 'DETAIL', 'CONTROLS', 'FEED', and 'SETUP'. Under 'CONTROLS', there are sub-tabs for 'LIGHTS', 'SENSORS', 'THERMOSTATS', and 'ACTIVITIES'. The 'THERMOSTATS' tab is active, showing a 'Main Area' with a 'DemoKit Thermostat' card. The card displays 'CURRENT TEMPERATURE' as 82° and 'HUMIDITY LEVEL' as 32%. It also shows 'Set Points' (87° COOL, 63° HEAT), 'Mode' (OFF, Fan, AUTO, Hold, OFF), and 'Humidify' (25%, Dehumidify, 55%).

# Advanced Logging Feed – Basic + Premium

## Every Data point is logged

- Adding, Removing, Enrolling
- Load, Sensor, Temperature Changes
- User information

## Feeds

- Each Location has a feed that can be customized to show different types of events that are important for the user

The screenshot displays the Leviton Advanced Logging Feed interface. The top navigation bar includes the Leviton logo, the user email 'tmorgan@leviton.com', and a dropdown menu for 'Leviton'. The main content area is titled 'FEED' and is filtered for 'Parker Office'. On the left, there are controls for 'Refresh', 'Search', 'Limit' (set to 25), and 'Filter' (with options for All, Info, Warnings, Alarms, Restores, Model, Areas, Controllers, Lights, Sensors, Thermostats, and Activities). The feed itself shows a list of events:

- Sensor** Mark's Office Motion Sensor  
Status: **OPEN**  
By: Itself  
A Few Seconds Ago  
Apr 11, 2016 2:18:32 PM
- Area** Mark's Office  
Occupancy Status: **Occupied**  
By: Itself  
A Few Seconds Ago  
Apr 11, 2016 2:18:32 PM
- Sensor** Mark's Office Motion Sensor  
Status: **CLOSED**  
By: Itself  
A Minute Ago  
Apr 11, 2016 2:18:16 PM
- Area** Mark's Office  
Occupancy Status: **Vacancy Delay**  
By: Itself  
A Minute Ago  
Apr 11, 2016 2:18:16 PM
- Sensor** Mark's Office Motion Sensor  
Status: **OPEN**  
By: Itself  
A Minute Ago  
Apr 11, 2016 2:18:06 PM

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# **Verticals (Solutions Guide + Cookbook)**

# Applications + Documents

## ■ Solutions Guide:

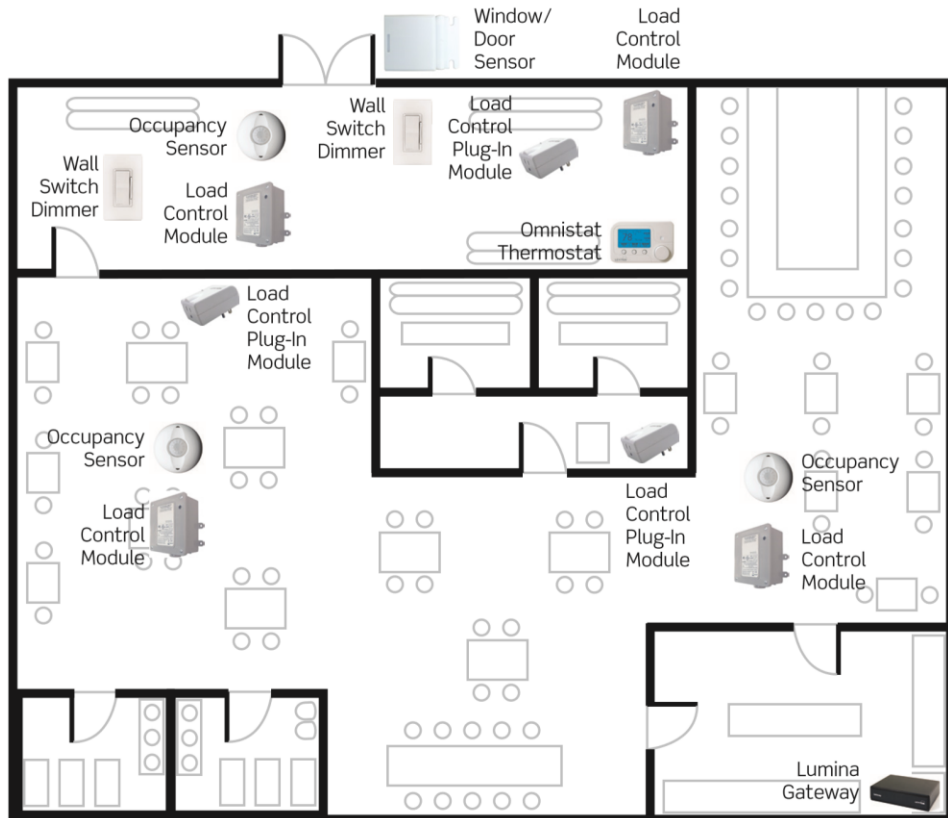
- End-user piece to promote understanding of applications and benefits
  - Executive Office, Convenience Store, Retail Store, Restaurant
  - Diagrams, benefits, resources

## ■ Cookbook:








- Installer/sales piece highlighting how it hooks together from a wiring POV
  - Small office, executive office, convenience store, restaurant, hospitality (doesn't involve Gateway but does involve Lumina RF devices), and retail store



# Solutions Guide: Restaurant



## List of Equipment

	<b>Lumina Gateway</b> 74A00-1	1
	<b>Load Control Plug-In Module</b> 89A00-1ZB	3
	<b>Load Control Module</b> 73A00--4ZB (5A) or 73A00-3ZB (30A)	4
	<b>Window/Door Sensor</b> LURDW-00W	1
	<b>Omnistat 2 Thermostat</b> RC-1000WHZB   RC1500WHZB   RC-2000WHZB	1
	<b>Ceiling Mount PIR Occupancy Sensor, 450 sq ft</b> ZSC04-lxW*	3
	<b>Lumina RF Decora 0-10V Wall Dimmer, 120-277VAC</b> ZSD07-AxZ*	2

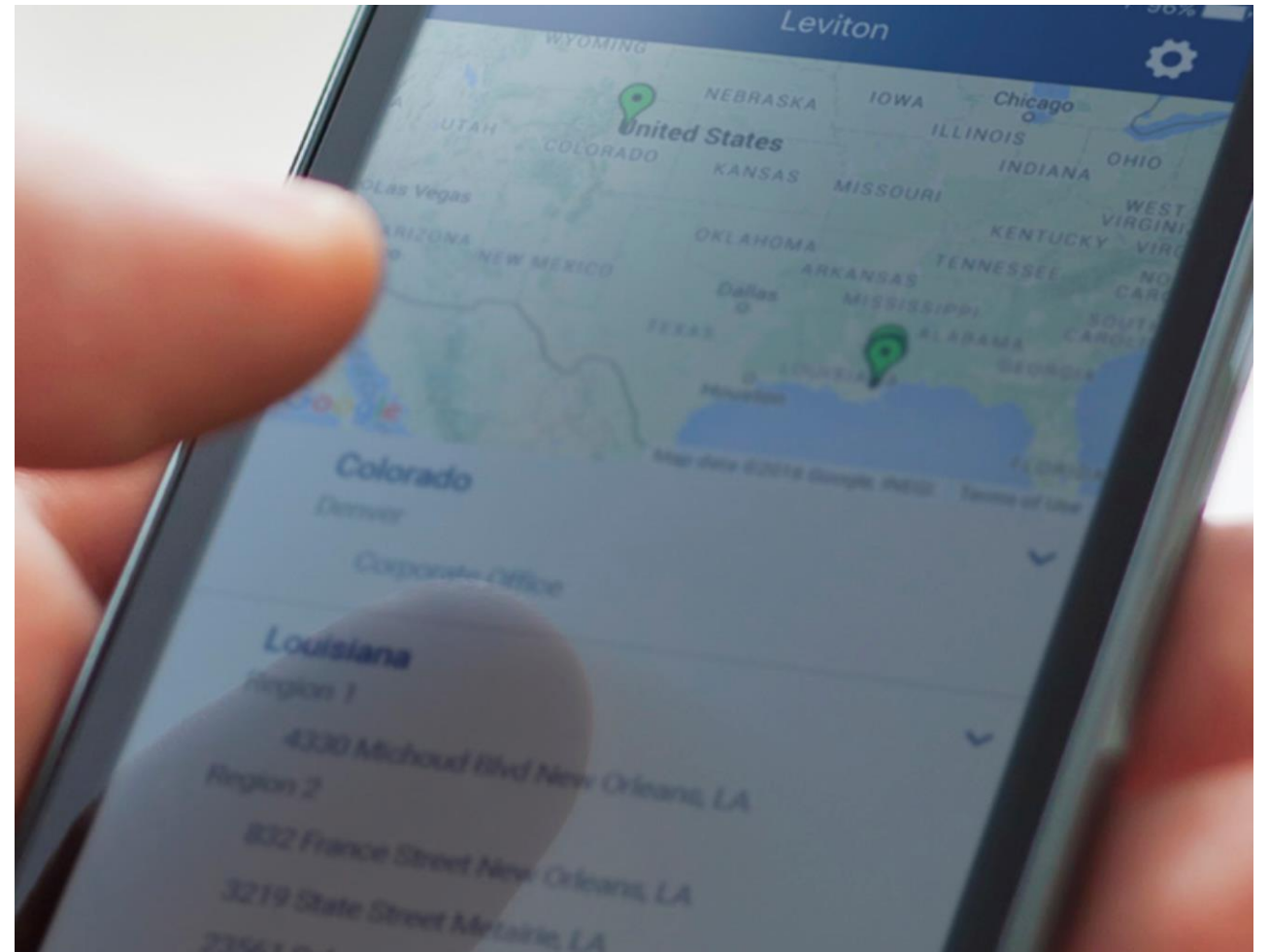
The background of the slide is a light gray grid of small, faint plus signs (+) arranged in a regular pattern across the entire page.

## Specific Applications + Scenarios



# Remote Access of Multiple Properties

- **Challenge:** Multi-Location business owner wants to quickly view the status of all properties, with ability to connect a single property to view details and control devices.
- **Solution:**
  - Use the iOS/Android app OR the web-based Cloud dashboard (desktop/laptop/tablet).
  - With enterprise tier, both could include map of all locations with color-coded status flag
  - Dashboard breaks down properties by location in a menu structure
  - All stores are connected live to the app to allow for quick control.



# Multi-Location Scheduling

- **Challenge:** Modern businesses with multiple locations need to easily maintain schedules and holidays across all properties.
- **Solution:** Use the new Leviton Cloud Services website to create a corporate wide schedule, allowing every connected location to have scheduled “open” and “close” activities run at the same time, on the same days, including holidays.
  - Each location could have the option to alter the schedules if necessary.



# Restaurant Wants to Change Every Light at Once

- **CHALLENGE:** 5PM, Monday through Friday, the restaurant needs to offset diminishing natural light with more lamp light.
- **SOLUTION:**
  - Create an activity to control multiple lighting loads via the cloud dashboard. We have two options and could execute either or both:
    - Schedule all of these things to occur every M-F @ 5PM automatically.
    - And/or create a manual “activity” for the mobile app and cloud dashboard.
      - Allows owner/manager to push the button when they desire, whether 4:45 or 6:23.
  - This could even be applied to multiple store locations so that all are running the same plan.



# Restaurant Wants to Change Every Light at Once

## ■ Step One: Set Your Schedule

### Schedule Details

What is the schedule called?

Dinner Time

Looks Good!

When does the schedule run?

Absolute Time



05 : 00 PM



Does the schedule run on holidays?

Don't run on holidays

Run on these days:

- Sunday
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday

## ■ Step Two: What Happens?

### Activity Details (Dinner Time)

What is the activity called?

Dinner Time

Looks Good!

Activity enabled?

Enabled

Run manually?

Enable Manual

### Schedule Triggers

These scheduled events trigger this activity

Dinner Time

### Device Triggers

These device events trigger this activity

No triggers are running this activity

### Actions

Click to add



	Overhead Light Dimmer	Status	On			
	Table Lamp	Status	On			
	Front Lobby LCM	Status	On			

# Light Up the Night: Automate Exterior Lighting + Loads

- **Challenge:** Customer is looking for astronomical time clocks to control outside parking lot and landscape lighting.
- **Solution:**
  - If existing loads are controlled by a contactor or switch, supply either a Lumina RF Switch or a Load Control Module (LCM) plus a Lumina Gateway.
  - Use the Cloud dashboard to set all loads to turn On/Off together or set up unique times for each load.
  - Need to make a change? Contractor does not have to deploy a truck to make system adjustments including sunrise/sunset. Using online remote access through the Leviton Cloud, you can login from anywhere and make the change in seconds.

## Schedule Details

What is the schedule called?

Night Time Exterior Lighting

Looks Good!

When does the schedule run?

Astronomical Time

Sunset

- Dawn
- Sunrise
- Solar Noon
- Sunset Start
- Sunset
- Dusk
- Night

Does the schedule run on holidays?

Only run on selected holidays

What holidays should the schedule run on?

- New Year's Day
- Martin Luther King Jr. Day
- Presidents Day
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veterans Day
- Thanksgiving Day
- Christmas Day
- Mardi Gras
- Halloween

# More Than Lighting: Temperature and Humidity Control

■ **Challenge:** Control thermostats based on the store opening/closing. Current competitive solutions available are “set back thermostats” which may not keep the same time/maintain the same settings across multiple thermostats within a property.

■ **Solution:**

- Use any of the Lumina RF thermostats and a Lumina Gateway. One program can be consistent across all thermostats and all will adjust based on schedules/activities. If desired, thermostats can have different schedules, for instance in a lobby vs. a kitchen.
- Want to make a change to Temp or Time? Connect via the Leviton Cloud Service and make the changes on site or remotely for one location or all locations.

## Activity Details (Good Morning)

What is the activity called?

Good Morning

Looks Good!

Activity enabled?

Enabled

Run manually?

Enable Manual

## Schedule Triggers

These scheduled events trigger this activity

- Dinner Time
- Good Morning

## Device Triggers

These device events trigger this activity

No triggers are running this activity

## Actions

Click to add



	Lobby Thermostat	System Mode	Auto			
	Office Thermostat	System Mode	Auto			
	Kitchen Thermostat	System Mode	Cool			

# Thermostat Bubble Syndrome

- **Challenge:** Thermostats are located in a common area. Risk being adjusted by customers/employees hindering energy savings. Current competitive solutions require the plastic “bubble” protector under a lock and key to restrict end-user interaction.
- **Solution:**
  - Leviton Lumina RF thermostats can be disabled entirely from local control (meaning, a jumper is put into place and the buttons do not respond to touch.)
  - Further, a program can be put into place whereby if the thermostat is adjusted beyond a certain degree to eventually revert it back to the lower-energy setting. This provides some flexibility for customers and also keeps facility managers aware of activity.



Modes **Setback** Alarm Triggers

**Auto Setback**  
(Automatically adjust setpoints back to the target after a given period)

Enable Auto Setback

**Setpoint Targets**  
(These are the "default" setpoints)

Cool	Heat
75	68

**Setback Minutes**  
(how long before setting back to target after manual adjustment)

30

## Notification Example: Temperature Alert

- **Challenge:** Need to keep tabs on temperature in a certain area (data center, control room, storage, refrigeration, etc.)
- **Solution:**
  - Use Leviton's thermostats as a temperature monitor.
    - All three models can sense the temperature in a room.
  - Using the Cloud dashboard, select high and low temperature settings for remote notification.
  - For example, if the interior temperature reaches below 50 or above 85 degrees F, create an alert.

The screenshot displays the 'Alarms' section of the Leviton thermostat Cloud dashboard. At the top right, there are four tabs: 'Modes', 'Setback', 'Alarm', and 'Triggers'. The 'Alarm' tab is selected. The main heading is 'Alarms'. Below it, the 'Inside Temperature' section has two columns: 'Low' and 'High'. The 'Low' value is set to 50 and the 'High' value is set to 85. Below this, the 'Inside Humidity' section also has two columns: 'Low' and 'High'. The 'Low' value is set to 10 and the 'High' value is set to 75. Each value is displayed in a white input box with a small up/down arrow icon to its right.



# Conclusions

Lumina Gateway 2.0 for Enterprise

# Summary

## ■ Tech Talk:

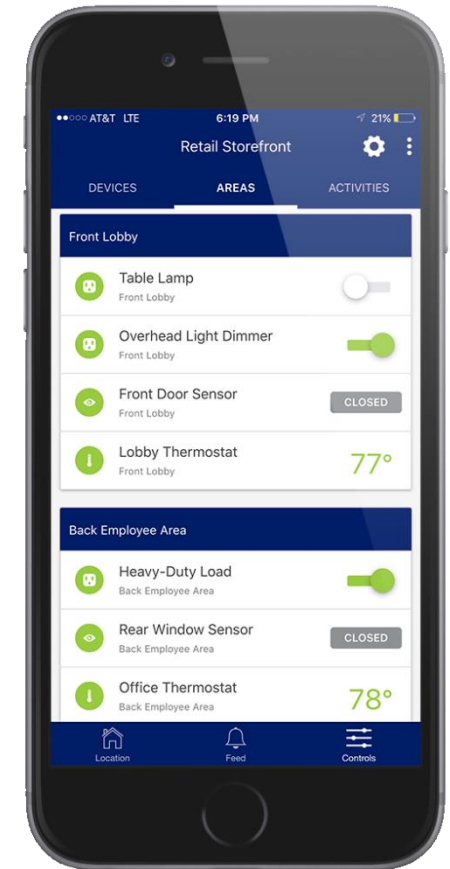
- Range Limits: 50 feet between devices, 40 devices maximum.
- Applications: light commercial, small business

## ■ Programming/Setup:

- Programming is done via LCS website from any web browser
- Easier to accomplish setup as it is based on tasks/activities (store open/store close)
- Create schedules/holiday rules for multiple locations

## ■ Control:

- Via App or Leviton Cloud Services:
  - Add and Enroll new devices using the app!
  - Map with all store locations and current status.
  - App broken into sections:
    - Info, Alerts, Control.
      - Control broken into:
        - Devices, Areas, Activities (automation settings)

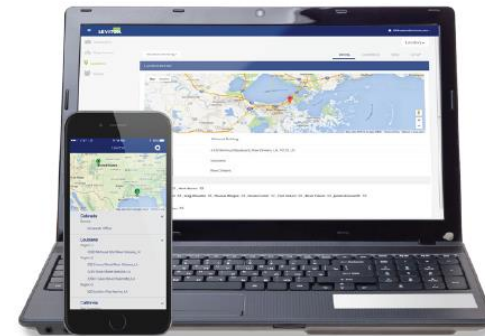


# Deployment Checklist

- **Once you have installed the hardware please refer to this checklist for deploying a Lumina RF eco-system:**
  - **Log in to <http://lcs.leviton.com> using your new credentials.**
  - **Create or open your existing organization**
  - **Add your Lumina Gateway Controller and update firmware if necessary.**
  - **Create Areas in your location for control such as rooms, floors, or zones.**
  - **Add Your Lumina RF Connected Devices in any order:**
    - *Loads, thermostats, sensors, shades, interfaces, etc.*
  - **Schedule Your Automation Preferences:**
    - *“When” you would like your building automated and any holiday restrictions your schedules should follow*
    - *Do you have multiple locations? Use the Organization tab to set holidays and schedules across all managed locations*
  - **Create Your Activities: “What” happens during the above time/date?**
    - *This may be time scheduled or based on an activity occurrence like motion being detected in an area.*

# Deployment Checklist

- Add The System's Users – At any time, an Agent or Admin may visit the “People” tab and invite someone to become a member of the organization.
  - *Agents: Full and complete access to every aspect of an organization including account and billing preferences*
  - *Admins: Full permission to everything, but cannot add or remove an Agent, or manage billing*
  - *Installers: Access to all locations they've installed across multiple companies. A person may be an installer for one company and an agent, admin, or manager in another, or they may be an installer in many different organizations. If you are an Installer for a specific organization, you are granted setup duties for the region, district, or individual location.*
  - *Managers: Access only to select locations; Select District or Store Manager.*
- Your organization's default plan is always free. At any time, an Agent can utilize the Organization>Plan tab to upgrade a subscription for more advanced features such as notifications and alarms
- For technical support please e-mail: [Sasupport@Leviton.com](mailto:Sasupport@Leviton.com)



Questions?

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