Lumani

Circadian

Power Consumption

Day Light Harvesting

LumaZones Autonomous Indoor Ambient Management

Occupancy/ Activity

Temperature

Humidity

Smart Building on the Cloud
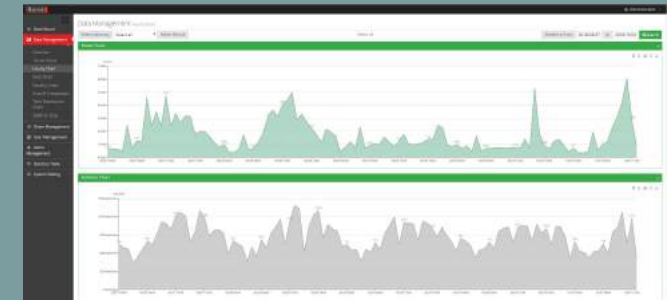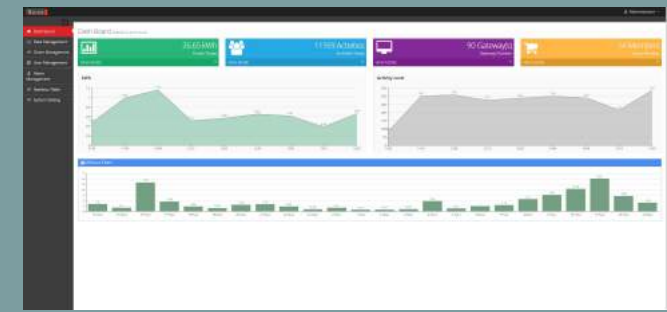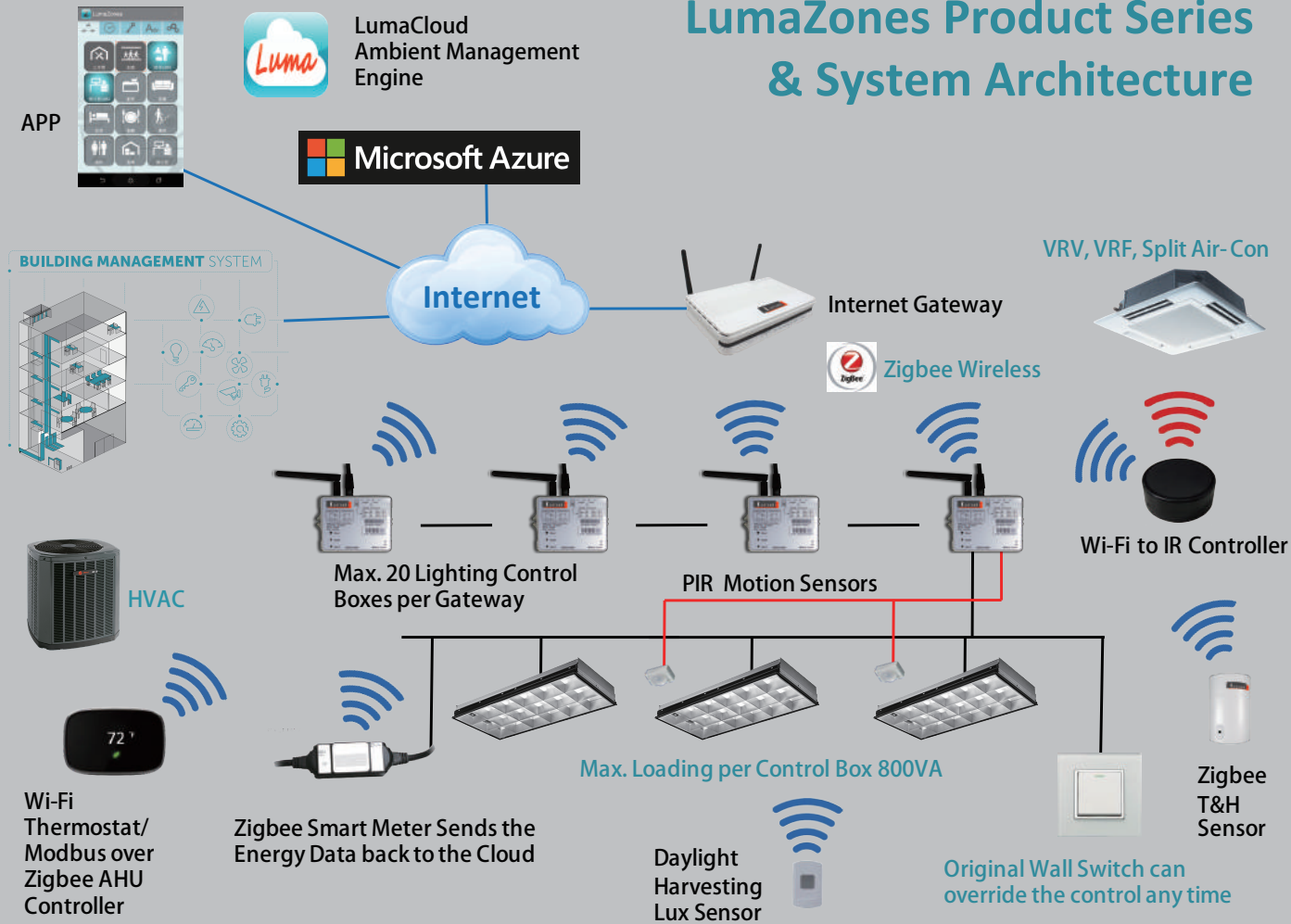
LumaZones Autonomous Systems

Lumani is presenting the world-leading autonomous lighting control which runs by itself and also controls the air-con or thermostat for you. That means you will no longer need to turn your light and air-con/thermostat on/off or up/down any time ever again! The system works on its own and decides what to do on the data of occupancy, lux level, temperature, and humidity. The greatest thing is, it saves not only trouble but also energy for you autonomously any time.

Green, Comfort, & Productivity

All Functions co-relate, co-exist, and co-work in harmony. It is designed to save energy while ensuring users' comfort. Our ambient management engine locks in the green comfort zones for the light and HVAC by human activity, lux, temperature, humidity, and even power consumption. If circadian light is equipped, the color temperature management can also be blended in while other functions are working together seamlessly.

High Performance LumaTube with Stealth Dimming Capability

LumaTube features in 2ft & 4ft @140 lm/W, and fits regular T8 fixtures. We also have down light & pendant available for your choice. Moreover, for your wider applications, LumaZones covers all 0-10V dimming LED lights if you have your preferred fixtures.

Not only on Lighting, but also on HVAC

Exploiting the fact that lighting is the most prevalent devices in a building, we take the human activity data from the motion sensors for lights, and use it to decide what to do for lighting and HVAC. Therefore, the action of the sensors is not on/off only. There are levels of operations, which are stealth and almost invisible, to make the systems more efficient.

For a 100 m² space, running 16 hours a day

	Power Consumption	Qty	Monthly Consumption	Energy Cost US$0.12
Fluorescent T8	40W	60	1152kWh	$138.24
LED T8 Tubes	18W	60	518.4kWh	$62.21
LumaTube LED T8	13W	60	374.4kWh	$44.93
LumaTube LED T8 with LumaZones*	8.94W	60	257.47kWh	$30.90
Saving	0.032kW		921.6kWh	$107.34
Inverter AC**	2.55kW	1	1224kWh	$146.88
Inverter AC with LumaZones***	2.18kW	1	1046.4kWh	$125.57
Saving	0.37kW		177.6kWh	$21.31

* Assuming 8 hours Busy; 6 hours Sensor (moderate occupied); 2 hours Silent
** 35kW capacity with EER=5.5W/W and average loading 40%
*** Original 25°C; Busy 26°C; Sensor 27°C; Silent Off; Assuming 6% saving per degree C

LumaZones Product Series & System Architecture

APP

LumaCloud Ambient Management Engine

Microsoft Azure

BUILDING MANAGEMENT SYSTEM

Internet

Internet Gateway

VRV, VRF, Split Air-Con

Zigbee Wireless

Max. 20 Lighting Control Boxes per Gateway

PIR Motion Sensors

Wi-Fi to IR Controller

HVAC

Wi-Fi Thermostat/ Modbus over Zigbee AHU Controller

Zigbee Smart Meter Sends the Energy Data back to the Cloud

Max. Loading per Control Box 800VA

Daylight Harvesting Lux Sensor

Original Wall Switch can override the control any time

Zigbee T&H Sensor

Get a Perception of Your Business with LumaZones Energy Web

No 3rd party analytics is needed. Dashboards and reports on the cloud provide real-time monitoring and statistics to help you understand your business better than ever with ambient data, energy profile, and space utilization of the property. You may use the big data to sharpen the marketing startegies as well as the facility and space arrangement accordingly.

Internet Access
SG600R2   Internet Gateway

Zigbee Devices
SG200   Lighting Control Box
SG110A   Temperature & Humidity Sensor
SG90   Zigbee to Modbus Converter
LS100   Lux Sensor

Wi-Fi Devices
SG211   HVAC Infrared Controller
TS004   Thermostat 80-260VAC
TS005   Thermostat 24VAC

Other Devices
TS006 Modbus AHU Controller
CA002S(P) PIR Motion Sensor Set

Service Packs
MS002 LumaCloud Control Annual Fee
MS003 LumaCloud Energy Web Annual Fee
MS004 LumaCloud Control API
MS005 LumaCloud Data API
MS006 LumaCloud Control & Data API

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