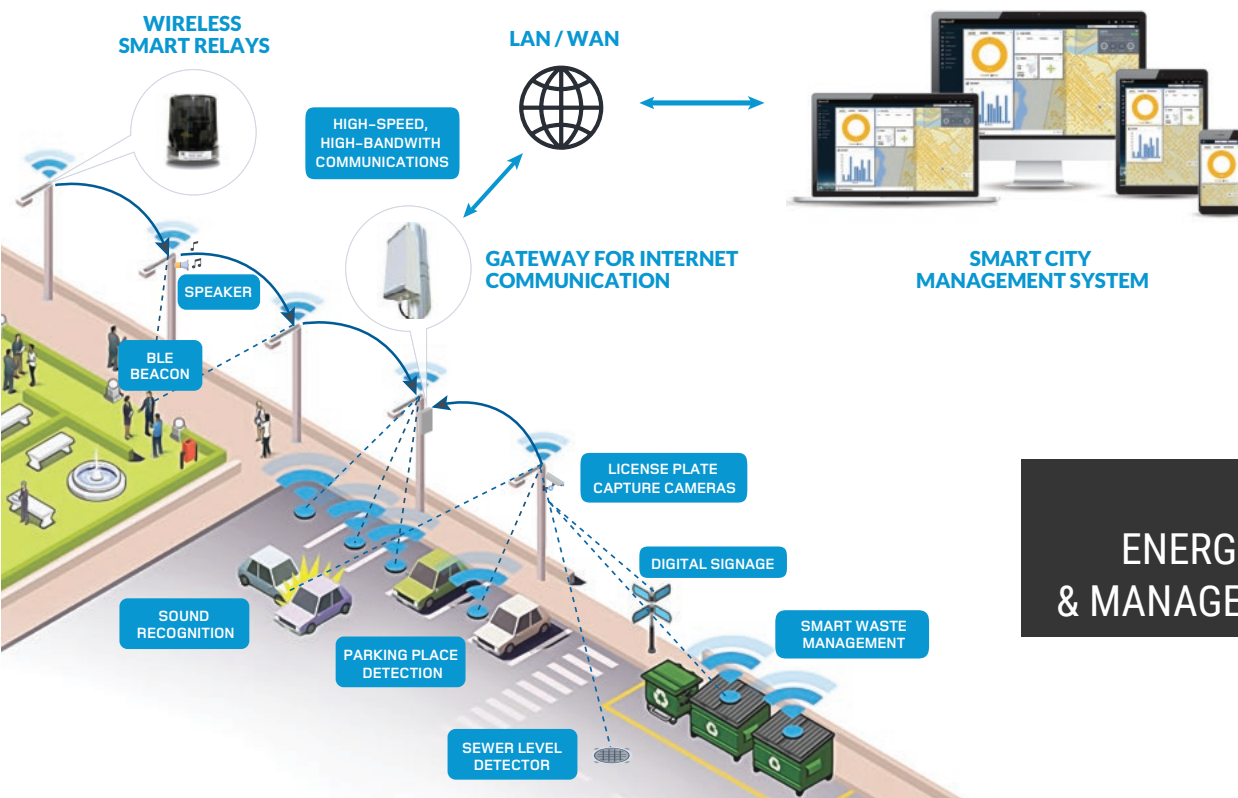


Advanced Lighting Technologies are proud to offer smart control systems from one of the world's leading providers, **DimOnOff**.

Considered a pioneer and innovator in wireless control and remote monitoring technology, DimOnOff's platform is a result of over 10 years of research aimed at creating the ultimate energy monitoring and management system.

Scalable yet flexible, the DimOnOff solution individualises control of luminaires and allows one-by-one wireless management of electrical loads. By simply adding DimOnOff relays to compatible light fittings, the system becomes a controllable network of light nodes and uses wireless communication (WIFI, 3G/4G) to remotely monitor and meter each fixture or circuit.

Controlled using a computer or mobile device, light fittings can be switched on or off and dimmed/brightened as required. Seasonal scheduling allows extra flexibility during quiet or busy time periods, and alarms can be sent automatically from individual faulty relays. A geographic overlay makes selecting the right luminaire simple.



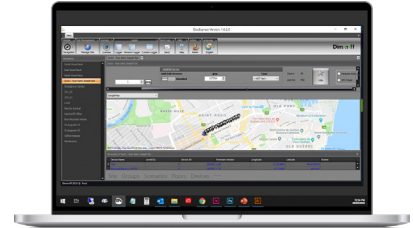
**THE ULTIMATE
ENERGY MONITORING
& MANAGEMENT SYSTEM**

Advanced Lighting Technologies offer two versions of DimOnOff's smart lighting control software:

DOO-EXPRESS

DOO-Express is an easy, cost-effective and reliable system that enables facility or site managers to remotely control their IoT assets such as lights, cameras, GPS trackers, digital panels, environmental sensors and more.

Suitable for smaller projects (less than 500 nodes), DOO-Express is installed on a single PC, accessed using a unique user license.

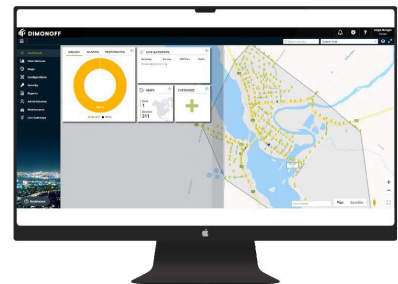


DIMONOFF | SCMS

DimOnOff | SCMS is an Internet of Things (IoT) evolutionary management platform, allowing large municipalities or organisations to remotely access, monitor and control smart assets like lighting, digital signage, public address systems and more.

Suitable for larger projects or cities, DimOnOff | SCMS is offered as a on-premise or cloud-based option. It can be accessed remotely on various devices via a web browser

In addition to DOO-Express, DimOnOff | SCMS also offers access to energy reporting and alarms / notifications via email or SMS.



COMPARISON TABLE

	DOO-EXPRESS	DIMONOFF SCMS
CONNECTS TO GATEWAY VIA INTERNET		
MULTI-SITE ACCESS		
SCHEDULING OPTIONS		
GROUPS AND ZONES		
ASSIGN TASKS		
MANAGE MULTIPLE GATEWAYS (SITES) FROM A SINGLE INTERFACE		
MANUAL ENTRY AND POSITIONS OF EACH NODE		
GIS / MAP INTERFACE		
FIXED IMAGE BACKGROUND SCREEN		
INSTALLS ON LAPTOP		WEB
CONNECTS TO NODES VIA USB-RF DONGLE (XBPBM)		
DYNAMIC REPORTS		
MULTIPLE USERS WITH LOGIN AND PASSWORD		
ENHANCED SECURITY WITH ROLES AND PERMISSION PER USER		
GLOBAL VIEW OF ALL GATEWAYS (SITES) ON A SINGLE PAGE		
AGGLOMERATE ALL DATA TO A CENTRAL DATABASE		
GENERATE REPORTS FROM MULTIPLE SITES		
TRANSPARENT UPDATES (NO INSTALL / UNINSTALL)		
EASY SELECTION TOOLS (LASSO OR MULTIPLE SELECTION ON MAP)		
SCAN AND GEO-LOCATION TOOLS AVAILABLE		
ASSET MANAGEMENT		
API & WEB SERVICES TO INTERFACE TO EXTERNAL SYSTEMS		
SQL TYPE DATABASE		
WEB BASED INTERFACE		
MAINTENANCE MODULE		
MONTHLY ACCESS FEE (SAAS OR ON PREMISE)		
LICENSE COST	\$	\$\$

SINGLE SITE PLATFORM ARCHITECTURE EXAMPLE

Basic System. Lowest project cost. Perfect for smaller installations.

- Reliable and proven software (DOO-Express)
- Ideal solution for budget conscious projects
- One user license required per PC
- Simple, easy to use application
- Manage entire site from one installation

Control capabilities:

- Scheduling
- Dimming
- Groups & Zoning
- Tasks
- Configure Luminaire Details
- Configure Pole Details
- Labelling



BENEFITS

- ✓ SIMPLE ARCHITECTURE FOR SMALLER OPERATIONS - "SET AND FORGET"
- ✓ USER FRIENDLY INTERFACE
- ✓ LOWEST COST - NO RECURRING FEES. NO DEDICATED GATEWAY REQUIRED

DISADVANTAGES

- ✗ CANNOT BE ACCESSED REMOTELY (ONSITE ACCESS ONLY)
- ✗ NO REPORTING FUNCTIONS
- ✗ NO ENERGY MAPPING FUNCTIONS

APPLICATIONS

Single-site installations such as:

- Shopping centres
- Factories and large warehouses
- Small airports & more

COMPONENTS & MINIMUM REQUIREMENTS

- A dedicated PC to manage the software
- DOO-Express software license (one license required per user or PC)
- One DimOnOff node per fixture
- DimOnOff USB-RF dongle



MULTIPLE SITE PLATFORM ARCHITECTURE EXAMPLE

Expanded functionality offered via Internet connection.

- Reliable and proven software (D00-Express)
- Dedicated IP66 gateway enables communication to nodes
- Network connectivity (via ethernet or wireless 4G)
- One user license required per PC
- Simple, easy to use application
- Manage multiple sites from one installation
- Surge protection

Control capabilities:

- Scheduling
- Dimming
- Groups & Zoning
- Tasks
- Configure Luminaire Details
- Configure Pole Details
- Labelling



BENEFITS

- ✓ SIMPLE, LOW COST ARCHITECTURE. NO DEDICATED SERVER REQUIRED
- ✓ CONSTANT ACCESS AND COMMUNICATION TO AND FROM NODES
- ✓ ACCESS MULTIPLE GATEWAYS VIA INTERNET/LAN NETWORK

DISADVANTAGES

- ✗ REQUIRES ADDITIONAL LAN WIRING OR ONGOING 4G SUBSCRIPTION
- ✗ NO REPORTING FUNCTIONS

APPLICATIONS

Multiple sites or zoned installations such as:

- Education & health care facilities
- Corporate campuses
- Industrial estates & more

COMPONENTS & MINIMUM REQUIREMENTS

- A dedicated PC to manage the software
- D00-Express software license (one license required per user / PC)
- One DimOnOff node per fixture
- One DimOnOff Gateway for every 500-1000 nodes
- LAN or mobile broadband connection for Gateway (mobile option requires third-party plan)



CITY WIDE PLATFORM ARCHITECTURE EXAMPLE

Comprehensive IoT system. Complete Smart City management.

- Expanded functionality thanks to DimOnOff | SCMS
- User friendly, web-based software
- Real-time monitoring, controlling and reporting
- Built in maintenance management
- Secured and remote access.
- Multiple users with different security permissions
- Hosted on server (either on premise or in cloud)

Control capabilities:

- Configuring, controlling and displaying all devices in real-time
- Complete scheduling management (including seasonal)
- Quickly and clearly identify alarms and faults
- Real-time measurement of power and energy consumption
- Comprehensive data reporting and exporting (PDF, XLSX, CSV etc)



BENEFITS

- ✓ REAL TIME MONITORING, CONTROLLING AND REPORTING OF ASSETS CITY-WIDE
- ✓ LARGE SCALE ADAPTABILITY
- ✓ ACCESS MULTIPLE GATEWAYS VIA DIMONOFF | SCMS
- ✓ INTEGRATION WITH EXTERNAL SYSTEMS POSSIBLE VIA API / WEB SERVICES

DISADVANTAGES

- ✗ HIGHER SETUP COSTS THAN DOO-EXPRESS
- ✗ ONGOING COSTS THROUGHOUT SYSTEM LIFE

APPLICATIONS

Large-scale sites such as:

- Local councils and municipalities
- Road authorities
- Large airports & more

COMPONENTS & MINIMUM REQUIREMENTS

- Local or cloud-based server to host database and interface software
- DimOnOff | SCMS installed on server
- One DimOnOff node per fixture
- One DimOnOff Gateway for every 500-1000 nodes
- LAN or mobile broadband connection for Gateways (mobile option requires third-party plan)



DIMONOFF NETWORK TOPOLOGY DIAGRAM

